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Address questions to Bruch Reed, coo@namyco.org.

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The Toadstool Picker's News

by Trent Blizzard

What is the most important and noteworthy thing that NAMA does? When I pose that question to our members, many of them, probably most, volunteer that NAMA forays are the thing they value the most. Personally, it was the forays that brought Kristen and myself into NAMA and got us excited about membership.

2022 felt like a very successful year for NAMA forays, with two forays planned, sold out and successfully executed. 2023 is starting to shape up, with at least two forays being planned. Consider saving the dates!

Boutique Foray: Mexico - We are preparing to announce a small "boutique" foray into the mountains South and West of Mexico City. Planned for the end of July and the first week of August; watch for further announcements.

2023 Annual Foray: Hendersonville, North Carolina - We are planning our big Annual Foray at the Kanuga Conference Center in North Carolina's Blue Ridge Mountains for August 24th to 27th. Save the dates!

Regional Foray: Parts unknown! Following on the wild success of this year's WMS/NAMA 2022 Northwoods Regional Foray, NAMA would love to collaborate with one or more of our clubs for a September, October or November Regional Foray.

Annual Foray

The Annual Foray is the primary foray that NAMA has produced every year, for decades (except in 2020 when it was canceled due to COVID). This foray is planned primarily by NAMA and its Foray Committee and traditionally is moved around to different regions each year. We have tried to accommodate roughly 300 attendees the last few years.

While NAMA does the majority of the planning and administration for this event, we partner with a local mycological club. In 2023, MOMS (Missouri Mycological Society) was instrumental in creating the event and played a key role in its success. The local club is specifically in charge of finding foray locations and usually has a few key members on our Foray Committee helping NAMA plan the whole event. They are especially helpful with local knowledge: recruiting local presenters, finding local service providers and volunteering at the event.

We are actively seeking a good location for our 2024 Annual Foray.

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Regional Foray

The concept of "Regional Foray" was reintroduced by NAMA in 2022 in a smash-hit event co-produced by NAMA and Wisconsin Mycological Society (WMS). We are hoping to produce another one for 2023. In a nutshell, NAMA collaborates with a local club (or clubs) to produce the event and we cover costs for specimen vouchering.

Trent Blizzard (President) & Barbara Ching (Past President) together at a 2022 foray.

NAMA also helps with planning, organization and registration (all attendees must be NAMA members). At the end of the day, the vouchering of specimens (and hopefully DNA sequencing) for science is NAMA's primary goal for a 2023 Regional Foray. We want the event to be successful and leave the co-producing local club(s) with money to dream their own bigger dreams.

Would you or your club like to collaborate on such an event with NAMA? We are looking for events for September, October or November 2023 since we already have a July and August event in the works. We are very flexible about the size, location and scope!

Boutique Foray

The "Boutique" Foray is new for 2023. Historically, NAMA would occasionally send forays to "exotic" locations all around the globe. We are trying to launch these events again in 2023, albeit with one within North American: Mexico.

The concept behind the Boutique Foray is to partner with an independent foray planner who will plan an experience for 20 to 40 people somewhere around the globe. It would be fun to go to an entirely different continent in 2024. Or, perhaps a Boutique Foray into a remote part of Canada, or Alaska? We are actively looking for someone to help us plan and then lead a small group of people to an exotic location.

Are you interested in working with NAMA on an Annual, Regional or Boutique Foray?

Email me at president@namyco.org if you have ideas and would like to discuss!

Mycology NEWS

Instagratitude!

By Kathy Yerich

As NAMA comes to the close of our second year of posting content on Instagram, we want to send a huge thank you to all the influencers who bring us Slime Mold Sundays, Mushroom Term Tuesdays, Bio Blitzs and FungiQuests…

Yes, our diverse group of Instagram "Takeover artists" bring us beautiful photos but also remarkable and varied content daily. In the words of David Zilber, you'll learn about everything "from *Aspergillus* to *Zygosaccharomyces* and everything in between!"

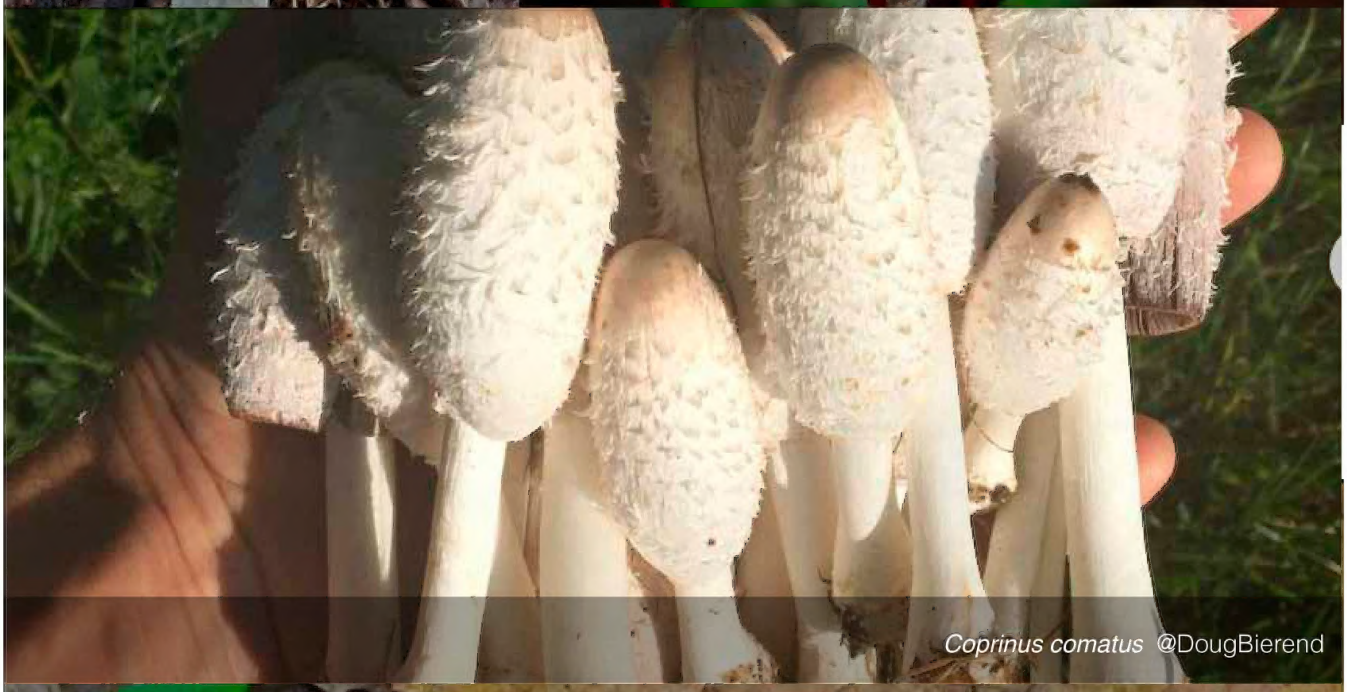
Content was shared from Alaska and Arizona, Australia and Bangkok,Thailand. Folks came to us from California (Berkeley and Santa Cruz) and Illinois (Bodwéwadmi, Kiikaapoi, Peoria Native land) as well as Missouri, Mexico (Guadalajara, Jalisco), Montana, New York, Vermont, Washington and don't forget Wisconsin.

Follow @northamericanmyco to see the most wide-ranging and diverse mushroom content from North America and beyond! Thanks to NAMA member Adam Cohen for his continued vision and commitment to keeping this content coming our way!

Reggie Serafin	@reggie_serafin
Bruce Welkovich	@mushroomsofalaska
Lawrence and Kathryn	@pixies_parasol
Ximena Curiel	@bioximena
Kayla Sulak	@her.campkitchen
Grace Stark	@the_molecular_mycologist
Maria Jose Torres	@fungipeople
Kristen Blizzard	@modernforager
Robert Courteau	@thinkfungi
Adam Field	@adamfieldpottery
David Zilber	@david_zilber
Doug Bierend	@dougbierend
Liz Weinstein	@mushroomsofinstagram
Harte Singer	@mycosomatic
Ottara Pyne	@amarottara
Christian Schwarz	@biodiversiphile
Luke Sarrantonio	@mycophilicorganism
Olga Myca	@smugtownmushrooms

Amanita muscaria @mushroomsofalaska

Ruby Bonnet @pixies _ parasol



Coprinus comatus @DougBierend

Aniseed Funnel @Biodisversiphile

WMS/NAMA Northwoods 2022
Regional Foray Experience

SEPTEMBER 15-18, 2022 • CABLE, WI

By Penn Gitomer, Adriana Arenas and Rhiza Gitomer Arenas

There's a general sense of mycophobia in our neck of the woods (Santa Barbara, CA) that doesn't seem to exist in the Northwoods of Wisconsin. Not because everyone here enjoys mushrooms, but rather because it seems there aren't very many people in this area at all. On the four-lane standard U.S. highways, we would sometimes whip past no other cars for what seemed like minutes at a time. We attended two full-day forays Friday and Saturday and while out in the woods we encountered no more than three other individuals unaffiliated with our party at each location. To say this location is remote is to put it lightly. The days spanned from grey and overcast to sunny, clear, and warm, culminating at the end of the weekend with a damp and cooling feeling in the air - cold and moisture never seem too far away in areas that hibernate half the year.

This is the second consecutive year I've attended a NAMA-sponsored event (this year we added a plus 1 and a third - my partner Adriana and almost-one-year old son Rhiza were welcome additions) and I can't speak highly enough about the people working behind the scenes to help a group of 200 individuals trek lightly in search of fungal experiences. A short walk through the lens of my family's experience attending the WMS/NAMA 2022 Northwoods Regional Foray at the Lakewoods Lodge follows, a coproduction of NAMA together with the Wisconsin Mycological Society (WMS).

We landed in Minneapolis-St. Paul and headed about three hours northeast to spend time in the

By Penn Gitomer, Adriana Arenas and Rhiza Gitomer Arenas

areas surrounding Cable, Wisconsin. Lake Superior was magical. It felt very sacred standing on the shore and dipping into the cold waters. The closer our end destination approached, the sparser and less frequent passersby we'd experience, while the forests became denser and more diverse.

Thursday evening introduced us to our rooming partners (a huge thank you to Northwoods Foray Registrar Kristen Blizzard for connecting us with Peter Martignacco and the Minnesota Mycological Society to include us in their cabin) and mingling with other excited attendees listening to the foray guides and NAMA staff report on hunting conditions and foray-site specifics. This was the only evening we dined at the on-site restaurant and we were impressed; all of the food felt like it was cooked fresh and with care. I made sure to indulge in a cheese curd opportunity - my partner, the health conscious mom she is, had a salad (she did try one single curd).

Friday brought forth the first official day and we were excited to explore the Ghost Lake territory led by local resident and NAMA President Trent Blizzard and the incredibly wise and endearing Jon Sommer. We unloaded the car (which others know can be a challenge when mushrooming; baskets, raincoats, bug-sprays, snacks, etc., now throw into that the diaper bag and necessities for a cloth-diapered toddler!) and were immediately into the forest, quickly finding *Pleurotus ostreatus* (oyster mushroom) and a new friend: *Entoloma abortivum* (shrimp of the woods). Enjoying the area around the base of the common sugar maple, these little white orbs are often overlooked for choicer fungi but seemed to be abundant and were the closest thing one would find to shrimp in this area. We loved the damp, swamplike feeling around the lake and blinked to find many mushrooms and four hours gone.

Upon returning to the resort for dinner and the evening wrap-up, we were greeted with smiling faces and white tables full of samples. My partner Adriana had never seen so many different mushrooms in one place. A long evening full of new friends, new information (speaker Tradd Cotter's

work is both entertaining and inspiring) and new tastes (we enjoyed a late night sauté-fest featuring some of the mushrooms we found that day) made for a memorable first day.

Saturday morning started with raincoats on, anticipating more moisture after overnight rains. We were heading to Black Lake with a group of about 15 people being led by the two presidents: Peter Martignacco of the Minnesota Mycological Society and Jon Sommer of the Colorado Mycological Society.

Tradd Cotter, speaker at Northwoods
Photo credit Steve Gabriel

Peter Martignacco
President, Minnesota Mycological Society (MMS)

Both were incredibly willing to share knowledge in the way of resources, books, supplies and foray stories. The wisdom our older generations hold is invaluable to the continuation of mannered nature-tending by new mycophiles.

I relish in these opportunities and urge other people newly interested in mycology to seek these beings/experiences out! Tangent aside, we had another full day of foraging, finding new fungi friends among plenty of mosquitos in the damp and incredibly diverse Black Lake region.

Saturday's evening included a mushroom tasting and a thoughtful and entertaining detailing of the Amanitacae by the artful and articulate Dr. Britt A. Bunyard. The Foragers, a four-person band from the Wisconsin area, rocked on the mic. Good times!

Sunday morning was wet and bittersweet. Forays feel too fast. Our spirits were quickly uplifted at the VIP breakfast to the tune of home-cooked goodies from NAMA leaders Trent and Kristen Blizzard and gang. Hawks-wing bread, black-trumpet quiches, fermented-ramp cream cheese, and chanterelle-apricot shortbread are just a few of the curated fresh foods we were fortunate to experience. We indulged enough that morning to last us until our flight back home on Tuesday.

A final check-in at the mushroom ID tables, now overflowing with specimens, and some words from the identifying crew brought a wrap to a great experience for our family. Already looking forward to next year, thanks NAMA!

MO-NAMA 2022: My First NAMA Foray

by Dave Layton

MO-NAMA Foray Goers - after a hike

Photo by Dave Layton

I'm First Vice President of NAMA and MO-NAMA 2022 was my first NAMA foray. Fortunately, I had very few "duties" but very many things to learn. I was prepared for a steep learning curve, but I didn't know I'd be on a learning Ferris wheel, cycling through serendipity, delightful scenery and amazing stories. The wheel's axle was a mutual love of fungi. So here's my Ferris wheel ride through MO-NAMA 2022, starting with serendipity.

Serendipity

As I mentioned, I did have a few "duties:" I had to attend the Annual Meeting of NAMA's Board of Directors. I had to connect with the board Secretary nominee and present her nomination to the board. Compared to everything that other Board members and foray leaders were doing to make the event a success, I basically had the duties of a freeloader. Serendipity made them even easier. I happened to meet Susan, the Secretary nominee, while we were both wandering around looking for mushrooms. So my first duty was accomplished while poking puffballs and tasting turkey tails. I started to realize I could do this.

I'd already started to realize that kindred spirits would be all around me when my wife Sally and I met Melodie Gates, our NAMA Treasurer, when we stopped to eat lunch at a pretty county park on the way to MO-NAMA. Watching her and her friends check the woods surrounding the park for fungi was

my first warm fuzzy feeling about the folks I'd meet throughout the event.

The first night we camped in our "dream van" at a campground a few miles from Trout Lodge. The tent campground was on a hill with little tent platforms that were crowded closely together, with hardly any level parking for our camper van. The site numbers were on picnic tables, so we pulled our table over to the only almost level parking we could find. Our only camping neighbor was a young woman who was also attending MO-NAMA – cool!

On Friday, folks dressed like *Amanita. muscaria* for a themed evening social. Sally and I brought *A. muscaria* socks that had been a gift from a friend, but we never wore them. We thought it'd be dumb to wear special socks that wouldn't be seen under or jeans anyway. However, the young woman who was our camping neighbor came in a delightful *A. muscaria* dress and hat, but her plain brown socks were just plain wrong! Sally rushed to the van and brought the woman her socks – she now looked just right.

Later she came to Sally saying, "I won the prize!"
"Oh we didn't know there was a prize."
"The socks WERE the prize!" she said, grinning.

Meeting Maxine Stone, my Great Plains Regional Trustee, was serendipitous too. A short conversation with her helped me understand how I could be more active in my local club. I've since taken steps to do that. By the way I can't imagine everything that Maxine and the Missouri Mycological Society members did to make the foray a success – a huge thanks to them all!

Even more serendipitous, Maxine brought a copy of an ancient book, *Mushrooms Edible and Otherwise,* by M. Hard to the silent auction. I constantly checked out that book from the public library in my early foraging years, treating it like a mushroom Bible. I didn't realize at the time that some mushrooms it listed as edible should have been otherwise. That's not Hard's fault though. He got that information, on good authority, directly from Charles ("Old Iron Guts") McIlvaine! Anyway, I still loved the book for sentimental reasons. I missed buying the original hard copy for a buck at the library sale years ago, but now, after an extravagant bid, it's in my library!

Scenery

The richly wooded Ozark foothills begin shortly after leaving St. Louis. Here in these deep, neverending woods I could really get lost (seemingly my favorite pastime) - not like in wooded remnants in my part of Iowa, where some landmark always interrupts my aimless wandering. Driving along I already was lost in fungal fantasies watching the woods pass by.

Fortunately, Missouri has beautiful state parks with well-marked trails. Even a wanderer like me would be hard pressed to get lost there. Our morning foray at Washington State Park and all-day foray at Meramec State Park were both lovely warm hikes with much scenery including petroglyphs, large caves, rivers and a spring-fed creek that produced an amazing scene of gray-haired people wading around barefoot with their pants rolled up like little kids. Maybe riding together on

a school bus brought out the child in us. It certainly added to the camaraderie. With only ten of us on the all-day foray, we had plenty of time to get to know each other. I consider the other nine all friends now.

The mushroom scene wasn't so amazing on either foray because of the dryness. At Washington State Park, I thought I'd stick with a Missouri club member who knew her way around. "Don't follow me," she said, "Today I'm looking for rocks." I considered following her anyway, as rock hunting seemed more likely to succeed. Nevertheless, many kinds of fungi were found and at Meramec our foray leader produced a huge honey mushroom. Certainly the overall diversity of fungi on the vouchering tables was still incredible. The vouchering samples provided their own taste of the lovely scenery. It's amazing what 250 people scouring the woods for fungi can come up with in any weather.

On Friday the campground was packed, our table moved, and our level spot was gone. We found a quiet boat ramp with level parking not far from the resort to sleep at. There we watched wisps of steam rise from the Trout Lake and were treated to a dark sky star show that included a half dozen shooting stars. It probably wasn't an official camping place but we were gone when the sun came up and we left no trace.

Stories

Mealtimes were the best story times. At one meal we met a couple who hosted David Arora and his new wife at their home. Pictures they showed of the happy couple were heartwarming. I was in my late twenties when Arora's book, *Mushrooms Demystified*, came to our library. That book became my new mushroom bible. I especially loved his humorous comments on edibility. Arora was like a hero to me, so I was astounded to learn that he was a teenager when he wrote and published it – Wow!

I had a breakfast with Ken Buegeleisen from the Fungal Diversity Survey (FunDiS). We discussed how cool it is that new large-batch DNA sequencing techniques were being incorporated into the vouchering of MO-NAMA's finds. He explained the technology to me in as dumbed down of terms as possible. I got it well enough to imagine the potential for better understanding the fungal hidden life beneath us.

He blew me away by saying that it went beyond fungi to identifying the surrounding microbes and the proximities and concentration of those microbes to plant roots, which could lead to mapping how mycorrhizae actually work. This mapping could lead to a revolution in agriculture as well as habitat management. It made me feel that NAMA was at the start of something big and that I, too, can play a small role.

The final night was a fun party with delicious beer provided by the Missouri club, and some good live music that I joined in on with my saxophone. Feeling rather proud and garrulous, I found myself immensely enjoying a conversation with a prominent mycologist. We even talked in depth about *Paragyrodon sphaerosporus,* an uncommon mushroom that's abundant where I live, so I happen to know a lot about it – enough to discuss it enthusiastically with someone who actually is knowledgeable.

We also touched on "medicinal" mushrooms. I mentioned a friend with cancer who wanted me to get him turkey tail mushrooms. I found fresh ones for him all winter that year but he died anyway. The mycologist said "People think medicinal mushrooms are some kind of miracle cure, but they are really only meant to be preventative medicine." I kind of knew that, but what my friend really needed was a sliver of hope and a reason to get together. That made turkey tails the best medicine available.

The mycologist seemed to enjoy my stories about moving the picnic table then finding an "unofficial" campsite. However, as I began to feel the beer, I told him about wandering around as a young man eating haymakers mushrooms (*Panaeolus foenisecii*). I ate them until I got a bellyache, hoping that they might contain psilocybin. They didn't. He stopped me short saying, "First switching picnic tables then your "unofficial" campsite and now this story – do I detect a thread of scofflaw in your history? I laughed saying it's possible, but his comment made me realize that Sally and I had better get to that campsite before I said something even dumber. The Ferris wheel was at the bottom. So ended my first NAMA foray. It was a scenic, serendipitous, story-filled success – the first of what I hope to be many.

2022 NAMA Award Winners
Announced at MO-NAMA

by John Lamprecht

Noah Siegel is Awarded the Gary Lincoff Award for Contributions to Amateur Mycology

NAMA's Award for Contributions to Amateur Mycology is given annually to recognize a person who has contributed extraordinarily to the advancement of amateur mycology. Its recipients have often extensively conducted workshops, led forays, written or lectured widely about mushrooms and identifying mushrooms. In 2015, the name of the award was officially changed to recognize the extraordinary contributions of the late Gary Lincoff.

In 2022, we had four worthy candidates who were nominated by their peers and voted on by previous awardees. In close balloting, Noah Siegel was selected. In nominating Noah, a group of those familiar with his accomplishments highlighted a number of areas pointing to his suitability to winning such a prestigious award.

R. Van de Poll, Ph.D., with input from and the full support of Renée Lebeuf, Kate Mohatt, Steve Trudell and Else Vellinga

Dear NAMA Awards Committee,

I have had the honor of knowing Noah Siegel since he was seven. In 1989, he and his family attended a mushroom walk I led in Keene, New Hampshire. Coming from a home-school environment, he already had a deep appreciation of all things out-of-doors, and with mushrooms he took to it like the proverbial 'fish to water.' Among all of his siblings, he quickly developed a passion for the subject which now, 33 years later, has allowed him to become one of the top mycologists in the North America.

In the 1990s, Noah became an active member of the Monadnock Mushroomers Unlimited (MMU) Club and was soon helping beginners and novices with mushroom ID questions. By 1997, his enthusiasm was at a level where it was clear he was the best recipient for a MMU scholarship to the Northeastern Mycological Federation (NEMF) Foray. His attendance clearly catapulted his predisposition towards mycology as a career path, and he has not stopped ever since, expanding his activities across North America and, more recently, abroad.

Noah has attended nearly every NEMF Foray over the last 20 years, has been on the faculty since 2004, and is one of the most sought-after speakers at several other regional forays around the country. He served as NAMA's Foray Chair and, with Christian Schwarz, double-handedly putting on the 2012 NAMA Foray in Santa Cruz, California. He finished his first book on Mushrooms of the Redwood Coast *with Christian Schwarz in 2016 and is current-*

NAMA Awards Committee Chair John Lamprecht and distinguished mycologist Ron Spinosa flanking awardee Kathy Yerich

ly working on several other books both here and abroad. He has traveled all over the world to research and teach about fungi, following rains and optimal fruiting seasons, with his recent trip to Cameroon being the subject of one of the online sessions at the 2021 NEMF Conference. As I write these words, Noah is in Guyana, assisting with research on ectomycorrhizal fungi.

The book Mushrooms of the Redwood Coast *is very widely used, not just in northern California, but throughout the West Coast; it has a high number of species, is beautifully illustrated, and has been thoroughly researched. Not only did Noah spend several winters (mushroom season in California) collecting and photographing mushrooms, basically living in his car, he also critically researched the literature and resurrected names that had been forgotten and proposed new ones as needed. Noah has also contributed to the knowledge of fungal diversity in North America by publishing peer-reviewed scientific papers and by describing several new species to science in the genera Xerocomellus and Tricholoma.*

In spite of his trips and travels, Noah has consistently provided aid and assistance to novice and amateur mycologists across the country and beyond. He shares his experiences and new knowledge (e.g., blue Entolomas from New Zealand and exotic chanterelles from Africa) from his international travels with North American amateurs through photos, talks, and informal interactions. He was President of the Monadnock Mushroomers Unlimited for nearly 20 years and helped organize and teach at the annual Mushroom Show. He is a regular at many other regional forays across North America, such as the COMA Foray in Connecticut, the BMC Cape Cod Foray, the Girdwood Fungus Fair and Cordova Fungus Festival in Alaska, the Santa Cruz Mycoflora Project Forays, the Mount Pisgah Arboretum Mushroom Festival (Springfield, Oregon), the Humboldt Bay Mycological Society forays and fair,

the Telluride Mushroom Festival, Arizona Mushroom Society foray, SOMA Camp in Sonoma, the Los Angeles Mycological Society's annual exhibit, the Puget Sound Mycological Society's Ben Woo Forays and annual exhibit, and of course a great number of the NAMA Forays over the last 15 years. Not only does he typically teach at these forays, he is usually one of the top mushroom identifiers at the foray collection tables, and, unlike many of his colleagues, always pitches in with the mundane chores associated with making an event happen, whether it is gathering moss for the display or vacuuming the room after the crowds have left.

A key aspect of the service that Noah has provided amateur mycologists is his professional photography skills. His photographs are among the best I have ever seen, not only in the books he has written and the talks he has given but also those that are publicly available through online citizen science sites such as Mushroom Observer and iNaturalist. He has won a number of photography awards for his work, including several NAMA photography contests. Having watched him in the field setting up, preparing and executing his layered photo sequences under all kinds of field conditions I can attest he puts his heart into it!

Finally, it bears mentioning that Noah does not merely take an 'armchair approach' to mycology. With a capacity to travel, collect, and voucher specimens all over the world under sometimes tenuous conditions, he is more dedicated to this field than most people are to their careers. With no research question too small or insignificant to consider, and no funding by institutions, he continues to study, sequence, rename, and better understand countless number of fungi that very few of us can even dream of over the course of our mycological endeavors. Noah's unfailing and persistent commitment to the field has elevated the awareness of the importance of fungi on our planet to new levels of significance. This is also shown in his contributions to the conservation of fungi by proposing species for the IUCN Red Data List*, and* A Field Guide to the Rare Fungi of California's National Forests *(published in 2019) for which he was the lead and main author.*

The Harry and Elsie Knighton Service Award Selectee for 2022 is Kathy Yerich of MMS

The Harry and Elsie Knighton Service Award was established by the NAMA Board of Trustees to recognize and encourage individuals who have distinguished themselves in service to their local clubs. It is named for the Knightons, whose efforts began NAMA in 1967. This year we had five nominees and the winner was selected from that list by the past 12 award winners. The winner is Kathy Yerich. Ron Spinosa wrote of Kathy, this year's winner from the Minnesota Mycological Society, about her tireless energy in service to the MMS and Minnesota/Wisconsin region.

On behalf of the Minnesota Mycological Society, I am nominating Kathy Yerich for The Harry and Elsie Knighton Award for her outstanding service to MMS and to the mycological community at large.

Kathy is a woman with an effervescent personality. She sparkles with creativity and has a kind generous heart. These qualities, along with her many talents, have made her a precious asset to our society throughout her membership spanning over 15 years. During that time, she has served on the MMS board in a number of capacities:

Recording Secretary
Vice President – current position
Chair of Programming – current position
For many years Kathy served MMS by the labeling, stamping, and printing of the MMS newsletter, The Toadstool Review.

As Programming Chair, Kathy has arranged cooking demos with locally and nationally known Chefs, including Allan Bergo and Zachary Mazi. She also planned fascinating presentations by Dr. Peter Kennedy, Dr. Patrick Leacock (on fungal sex) and a pioneering Black Périgord Truffle farmer, Jasmine Richardson. MMS eagerly anticipated a presentation by Michael Kuo, well known for his Mushroom Expert website, but sadly had to cancel due to COVID. (Kathy recruited Britt Bunyard, last year's Gary Lincoff award winner, to fill the vacant speaker position.)

Kathy has also volunteered her time and talents to the North American Mycological Association, where she was a past Vice President and the current Chair of the NAMA Marketing Committee. She acted as producer of the delightful NAMA promotional video, which was distributed to mycological societies throughout the nation, to encourage membership in NAMA.

During the COVID pandemic, thanks to Kathy's outreach, MMS hosted a Zoom meeting featuring Trent and Kristen Blizzard, of the popular blog, Modern Forager, to do an exciting mushroom cooking and preservation demo. Kathy's friendship with Trent and Kristen lead them to join NAMA. As a result, NAMA has a new president. His name is Trent Blizzard!

Kathy is a popular presenter on mushroom related topics in the Twin Cities area and nationally. Here are some examples:

Kathy was Chief Forager and mycologist for the Women's Wellness Weekend at the Audubon Center of the Northwoods.

She was Chief Forager and mycologist for Chef Camp, a woodland food retreat in Northeast Minnesota, where top local chefs congregate to prepare delectable dishes for fervent mycophagists.

She was featured on Daniel Klein's award-winning food video series The Perennial Palate, and in Bizarre Foods, hosted by Andrew Zimmern.

She teamed up with Chef Beth Jones, of the University of Minnesota Campus Club, to sponsor a unique event, The Minnesota Mycology: Small Plate Soirée. Participants were taken on a mushroom foray, led by Kathy, to forage for wild edible mushrooms, which were later transformed into a gourmet dinner by Beth.

At some MMS events, a silent auction is held to raise funds for our club's scholar-

ship awards for University of Minnesota's graduate student research. Because of COVID, the MMS silent auction was done online. Kathy was a key organizer for that event, which was a resounding success.

Kathy is most well known as the co-author of the field guide, Mushrooms of the Upper Midwest*. Minnesotans have waited a long time for a field guide that includes our state's mushrooms. That book is a big seller, now in its second edition. Many of the stunning mushroom photos in the guide were shot by Kathy, who also happens to be an accomplished photographer.*

Besides Kathy's passion for mushrooms, she is also an avid quilter. These interests came together when she initiated The Marek Turowski Memorial Scholarship. Marek was a beloved member of MMS, who passed away in recent years. This is a scholarship awarded to an MMS member to attend the annual NAMA Annual Foray. To raise funds for the scholarship, Kathy created a lovely mushroom-themed quilt that was put up for auction at a NAMA Foray.

Kathy's creativity knows bounds! She was one of the first MMS members to explore the art of dyeing with mushrooms, which she has enthusiastically shared with other members. She shows no indication she will slow down in her sharing her vast talents.

Each of our local societies/clubs has worthy candidates. If you want to continue to recognize those doing wondrous things in mycology both at the national/international and local levels please sharpen your pens, pencils or keyboards. A call for nominations will be sent out in a future *Mycophile*.

As you can see, nominations for each of these awards should include a description of the accomplishments the nominee has made either in the field of amateur mycology or in direct support of their local club/society. A name alone is not a sufficient nomination; neither is a profile on a website. The recipient must be living at the time of the award. In the case of the Gary Lincoff Award, nominees who were not selected to receive the award are automatically re-nominated for 4 additional years, after which the nominee's name has to be re-submitted. An updated yearly nomination enhances the chance of that person being selected, but it is not required. For the Knighton Award, unselected nominees are automatically re-nominated for two additional years. Again, an updated nomination submission enhances the chance of that person being selected, but it is not required.

For the Gary Lincoff Award, selection among nominees is made by a vote of the living past award winners. The award includes a plaque and lifetime membership in NAMA.

For the Knighton Award, the recipient is also selected by the living recipients of that award. The winner will receive a plaque, a one-year membership in NAMA, and registration, housing and foray fees for the next NAMA Annual Foray.

Announcing the winners of the 2022 Visual Arts Contest

By Rose Tursi NAMA Arts Committee Chair

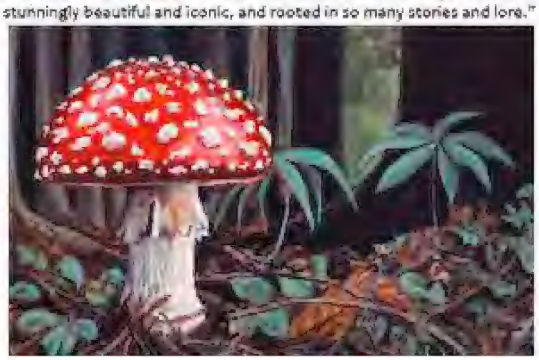
On October 1st, NAMA Visual Arts Committee Chair Rose Tursi formally announced the 2022 Visual Arts Contest winners at MO-NAMA's evening event at Trout Lodge in Potosi, Missouri. Now we are posting the results here in the *Mycophile*. As a quick recap for those not aware, this contest had six categories, with one winner in each category receiving a 1-year membership in NAMA (those who were already members received a 1-year extension of their membership). This year, to coincide with NAMA's State Mushroom Initiative, the theme was "State Mushrooms." Artists were asked to think about a state, province or territory in North America with which they had a connection, together with what mushroom they felt best represented that state, and use that as the theme of their artwork. A jury of 3 professional artists not affiliated with NAMA judged the entries based on quality and skill, as well as how the theme was interpreted. Due to the large number of entries in the Drawing and Painting category, the jury also awarded 3 honorable mentions in that category. Full details of the contest are available at the NAMA website under the Visual Arts tab. Without further adieu, here are the 2022 winners and the statements they made regarding their works! Enjoy:

Drawing and Painting:

Ashley Bravin

Website: http://ashleybravin.net
Instagram: @ashleybravin

"These paintings were made to celebrate the beauty of mushrooms, specifically the fly agaric mushroom, which can be found in the wooded areas of my home in Tennessee. I am nominating the *Amanita muscaria* as our state mushroom, as it is common in our forests here, and also stunningly beautiful and iconic, and rooted in so many stories and lore."



Sewing and Fiber Arts:

Julie Beeler

"The saprophytic *Phaeolus schweinitzii*, feeding on (and sometimes aggressively attacking) the tree structure, breaking it down and recycling it can be found in so many areas. I often think of the lush, old growth forests of British Columbia, since this is natures way of thinning the forest to create a better environment for all plants and trees."

Photography:

Mike Hopping
Asheville Mushroom Club

"I've not heard that North Carolina has a state mushroom, so I conveniently nominate *Amanita jacksonii*. The state could do worse. And besides that, nothing named after Coker, Curtis, or Schweinitz is half as pretty."

Digital Art:

Jeff Dufresne
Mushroom Club of Georgia

"Attached is my submission to the NAMA Visual Arts Contest on behalf of the State of Georgia. As a relatively new member of the Mushroom Club of Georgia, this NAMA contest really inspired me to learn more about our State's diversity of mushrooms."

Finalist

2D Mixed Media:

April Thompson

Washington DC
IG: @prillytee
Mycological Association of Washington

"DC may not be a state but we represent the United States of Mushrooms - all the diversity in fungi and in people. I love Amanita Jacksonii (center to composition) a strikingly beautiful, edible if you dare, mushroom that doesn't conform to expectations, much like our city (in a good way). It's surrounded with different Russulas that are also common in Rock Creek Park (DC's national park, full of all the choice mushrooms you could find). As we represent people from everywhere in the country in the nation's capital, the composition also represents fungi from other states - like Satan's bolete, found more often on the West Coast. The ceps like many other US fungi and people are immigrants, and cluster in small but beloved populations. :)"

3D and Sculpture:

Heather M. Johnson

"The reason I propose *Morchella americana* as the representative state mushroom of Michigan is primarily because of the familiarity and connection people seem to have with the Morel. These connections extend like mycelial threads; connecting communities, friends and families. Boyne City boasts of their annual "National Morel Mushroom Festival" every May while other Morel festivals across the State bring communities together in celebration of the Morel. Michiganders go to great lengths to keep the location of their Morel hunting grounds a secret 'rite of passage' while many people say the locations are "taken to the grave". Family and friends gather to swap stories of the "Great Morel" or brag about the "bushel basket full of Morels" they collected while others reminisce of mushroom hunting with Grandma or Grandpa to find the elusive mushroom. The name *Morchella americana*, itself, almost reflects state unity and, since it is one of the most common Morchella species found in Michigan, I thought it was appropriate to propose this species. Although there are many other mushrooms which could represent Michigan, the Morel is almost always the first mushroom that comes to mind and is always considered one of the heralds of Spring after a long Michigan Winter."

Finalist

Honorable

Honorable Mention

D Yael Bernhard

"This illustration was painted in acrylics and designed into a bumper sticker to raise awareness of the proposed bill currently under consideration in the New York State senate, to make *Lactarius peckii* the official state mushroom."

Honorable

Honorable Mention

Rohanna Hasselkus

IG: @rohanna_hasselkus

*The graphite drawing is of an *Amanita Phalloides*. The movement of the Amanita genus across the United States is widely tracked but some species are given more of a spotlight than others. The tracking of different species of Amanita conveys the collaborative nature of the mycological world and the collaboration which takes place between professionals and amateurs. *A. Phalloides* is given particular attention because of its dangers. Due to its presence in the media *A. Phalloides* are well known among fungi species in the West but making it a state mushroom would be beneficial for raising awareness of its dangers. This species first arrived in California and have become increasingly common within the state."

Honorable Mention

Denis Benjamin

"Texas - Lone Star flag and *Chorioactis geaster*"

Honorable

Winners

Congrats once again to these amazing artists.

Stay tuned for the next issue of the Mycophile, in which we'll announce the 2023 Visual Arts Contest theme and guidelines.

Mycology

Let's Eat!

Starting A Culinary Group within your Local Club

by Jess Starwood

We find ourselves enthralled with fungi in a wide variety of ways, some for the science, some for the appreciation of their form and beauty, some for their cultural, art and environmental uses, while others among us revel in the gustatory delight of eating them and exploring their unusual culinary uses. And what better way to enjoy those earthly pleasures than to share them with others? Eating has traditionally always been a social activity. From gathering and processing the ingredients, cooking in the kitchen to sitting down at the table among friends, family and even strangers are welcomed to feast. Based on research, sharing meals with others has consistently shown to increase the connection between individuals, not to mention the increased likelihood of feeling happy and satisfied in our lives. Add mushrooms to the mix and you've got a recipe for building a stronger community.

In fact, sharing mushroom meals is one of the greatest parts of the community: getting together at the end of a day in the woods with friends to cook and share a meal of freshly foraged mushrooms, exchanging stories, knowledge and laughs. There's a sense of accomplishment as full baskets return to the kitchen or campfire and are cooked up for all to share and enjoy, often to explore new flavors and try out different recipes. It's a drastically different experience from coming home from a trip to the supermarket with a plastic-wrapped meal.

Culinary events aren't just for foragers though – they can also bring together folks who may not be able to go out into the woods themselves, presenting an opportunity for likeminded folks to get in on the action of one forager's bounty. They are also great opportunities for people who are unfamiliar with cooking mushrooms and are eager to learn, for seasoned chefs who are looking for inspiration, or folks who just like to meet a likeminded community.

David Arora and Wendy So provided 12 different mushroom species to attendees for a blind taste test at the Beyul Mushroom Retreat in 2022

Members are Hungry for More

Getting people together is as important now as it has ever been before after years of enduring endless virtual and canceled events. Additionally, as a widespread interest in mushrooms is expanding rapidly, many clubs have seen an exponential increase in membership during the last few years. Many clubs are attracting younger members who are enthusiastic and excited to get involved with the local fungi community. For those interested in the culinary side, the opportunities are abundant and are only limited by your imagination.

It Takes a Village

Some clubs have a chair position on their board to facilitate the culinary efforts and gatherings, or even designated a club chef, while others, like Los Angeles Mycological Society, has an auxiliary group that runs somewhat independently. Whether the brunt of the work it takes to organize, host and facilitate a culinary event falls on one person or a committee, it can be challenging to get enough support and volunteers to follow through for an entire season. Several club chefs and board members have expressed that it is easy to get burnt out trying to do it all. However, teaming up with dedicated members with a passion for mushrooms and cooking can help lead to a rewarding and exciting experience for all.

The Minnesota Mycological Society hosted a potluck at the 2022 Northwoods Foray. Britt Bunyard (left, *FUNGI Magazine* Editor) and Peter Martignacco (MMS President) with NAMA Secretary Howard Goltz

Ways to Enhance Your Club's Culinary Events:

Mushroom Dinners

With a bit more effort, a mushroom-themed dinner can be served for members. These dinners can serve as a platform for culinary and mushroom education, but sometimes simplicity can be more efficient. Julie Schrieber, from SOMA (Sonoma County Mycological Association), who organizes and serves mushroom dinners for the club, says that folks often are just interested in eating. Cooking and serving a multi-course meal can be daunting, so be sure to enlist some help from volunteers. Dishes can be delegated to experienced members so that diners can enjoy the talents of more than one chef. Volunteers can assist with prepping the food, setup and cleanup. Alternatively, the club can enlist the efforts of a professional chef to cook for the event, but it may be helpful to have expectations laid out ahead of time to ensure needs are met.

Forays

Forays offer an immersive experience to find, collect and identify mushrooms in the field. After a successful foray, a tasting of the different species can be a great way to get a multi-sensory experience by comparing and contrasting the array of mushroom flavors and textures. The more senses that can be involved with learning the identification of a new species, the better it can be recalled in the future. We may know what the mushroom looks like, but what does it smell like? How does it taste? Finding and identifying fungi are the first steps in really getting to know them on an intimate level. Everyone can pitch in with cleaning mushrooms, prepping them for the skillet, cooking and cleanup, making the effort less daunting – especially after a long day of roaming through the woods.

Potlucks

Organizing a potluck helps to alleviate some of the work in the kitchen for a single chef, distributing the work to feed a group to those attending. It also encourages sharing of home recipes and helps to build community between members. Mike Dechter, past president of the Arizona Mushroom Society, says that this has been one of their favorite ways to get people together and often results in incredible dishes being shared and swapping recipes with others. Mushroom dishes should have their ingredients clearly labeled, especially when it comes to wild mushroom species, in case anyone is sensitive or allergic to certain foods.

Mushroom Demo Tasting: Trent and Kristen Blizzard cooked up mushrooms 6 different ways for a mushroom tasting at 2022 Barronett Tri-County Foray. Chanterelle Jerky and Porcini Pate pictured.

Kathy Yerich slices up fresh-baked Chanterelle Mushroom Bread at a tasting

Cooking Classes & Demos

As mushrooms are finding their way into the culinary spotlight, many people are still trying to learn how to cook with them. Educational events, especially cooking demonstrations, are important to members who are interested in demystifying how to add more mushrooms into their everyday meals.

Chefs are also curious to know how to feature and elevate these once obscure ingredients. Demos are a great way to showcase the talents of a local chef who may donate their time in exchange for exposure for their services or restaurant. Julie Schreiber of SOMA says that cooking demos are very popular at the club's annual mushroom camp.

Informal Mixers

Less formal social gatherings can be a great way to get members together, meet new people in the club and enjoy beverages (both alcoholic and non-alcoholic options) and some mushroom-themed tapas. Mushroom mixology can be an interesting way to explore mushroom flavors in an unusual way. A mixer is a great way to kick off a season, getting people together to reconnect with old friends and socialize without too much pressure of a formal event.

Cooking Challenges

Jean Fahey of the Central New York Mycological Society recounts that "previously, the culinary chair would hold two tastings a year with volunteer chefs who would cook on the spot using butane stoves and included a competition for best dish—people made some pretty over-the-top dishes at times."

For clubs that might not get together often or during the off-season, the group can be engaged with virtual cook-offs and challenges to inspire and explore uses of all sorts of mushrooms. As social media can affirm, people love to share photos of food. Giving the group a platform to share and comment on each other's food photos can be a great way to encourage participation and inspire people to get involved in cooking with mushrooms. There are some great groups already on Facebook, such as Mary Smiley's "Cooking with Wild Mushrooms" and its popular "Chopped Challenge," where members are tasked with the challenge to create a recipe using a list of easy-to-access yet sometimes obscure ingredients (Peanut butter? Spam? Cola?!) and include a wild mushroom of their choice. This is a great virtual way to inspire creative thinking in the kitchen and to work with ingredients that one might not normally reach for when crafting a mushroom dish.

Club Cookbook

Putting together a collection of members' favorite recipes can be a great way to highlight talented members in the community and share recipes that were enjoyed at events throughout the season or longtime family favorites. The end result can become an actual printed book or, to keep costs at a minimum, a virtual pdf that can be sent electronically – which can be purchased to raise funds for the club to support other endeavors.

Mushroom Fairs & Festivals

A club's annual mushroom fair or foray is a traditional, excellent opportunity to inspire interest and attract new members and volunteers to get involved. Culinary-focused classes with chefs or ambitious members can offer interesting demonstrations on culinary methods and preparations. Some food regulations restrict the types of mushrooms that are allowed to be served to the public, especially when it comes to wild mushrooms, so it is best to check what restrictions are in place in your area.

Collaborate with Local Mushroom Farms for Off-season Cooking

With the seasonality of wild mushrooms and the occasional lackluster year, along with the fact that not everyone has the ability to forage, it can be helpful to enlist the help of a local mushroom farm to donate their cultivated mushrooms to feature during culinary events. It can be a beneficial exchange for both the club and the farm, a way to promote the farm's business and keep costs down for the club's events. For example, the newly established urban farm Smallhold is growing its new presence in Southern California and has been extraordinarily grateful to align with the culinary group of the Los Angeles Mycological Society.

Whether it's a multi-course mushroom dinner or a casual myco-mixer, folks are excited to get together to talk about and eat mushrooms. Events are memorable and lasting, establishing friendships new and old, while also strengthening the community. Enlisting the help of new members to volunteer and get involved in culinary events can help them gain familiarity with the club and become an active member, hopefully for years to come. As we collectively move past the pandemic era of lockdowns and virtual meetings, the community is ready to gather again, stronger – and tastier – than ever before.

Aviddoghug at English Wikipedia(Original text: David Gough), Public domain, via Wikimedia Commons

Have you seen a fairy ring? According to folklore, a ring of toadstools, also known as a fairy ring, marks off a space distinct from the human world. Inside the circle, where fairies dance, the rules of social conduct and even physics change. For her new artwork, Berlin based artist Jenna Sutela is mapping these fungal portals to a more-than-human world.

Please use the form below or get in touch at studio@jennasutela.com to share a fairy ring with the rest of the world.
https://fairy.blackshuck.co/

About the artist:
Jenna Sutela works with words, sounds, and other living media, such as *Bacillus subtilis* bacteria and the "many-headed" slime mold *Physarum polycephalum*. Her audio-visual pieces, sculptures, and performances seek to identify and react to precarious social and material moments, often in relation to technology. Sutela's work has been presented at museums and art contexts internationally, including Guggenheim Bilbao, Moderna Museet, Serpentine Galleries, Castello di Rivoli, Shanghai Biennale, and Liverpool Biennial. She was a Visiting Artist at The MIT Center for Art, Science & Technology (CAST) in 2019-2021.

Holiday Gift Guide

This 2022 Holiday Gift Guide was prepared by several contributors and represents some of our favorite non-book items for mushroom lovers.

Support NAMA Scholarship Fund with Amazon Smile

NAMA has an Amazon Smile account, which we invite you to use for your shopping on Amazon! Nama Members will enjoy the same low prices and free shipping while Amazon will donate .5% of your purchases to the NAMA Scholarship Fund.

Please visit smile.amazon.com/charitylists and select "North American Mycological Association." After you select NAMA, your purchases will support the NAMA Scholarship Fund as long as you begin your Amazon purchases at *smile*.amazon.com

2022 Holiday Gift Guide

Mushrooms for Cooking
My Mushroom People specialize in powders from fermented mushrooms. They take these to the next level by infusing into honey, spices, teas, consomme, coffee and more. They are based out of coastal Oregon and use products that are either foraged or organically cultivated. (Trent Blizzard)
https://mymushroompeople.com

Tasty Koji Products
Elena and Kevin from Shared Cultures make the most delightful tasting products using *Aspergillus orzae*, aka koji. Try their miso, shoyu or tamari, many of which are made from mushrooms like chanterelle, morel, shitake or *Cordyceps*. They are based in San Francisco but will ship products right to your home. (Trent Blizzard)
https://www.shared-cultures.com

Foraging Bags and Baskets

From hand-crafted foraging baskets and bags, burn morel hunting maps, foraging knives and books, to fun and funky fungi-themed apparel - Modern Forager has something for every forager in your life! I bought their wonderful first prototype collapsible, 4-chambered mesh foraging bag at Telluride Mushroom Festival in 2016 and have used it on every foray since. (Bruch Reed) https://www.modern-forager.com

Mushroom-dyed Yarns and Scarves

Mayumi Fujio specializes in botanical and mycological fabric dyes. Using mushrooms (and plants) she creates beautiful yarns as well as finished scarves, silks and fabric-based products. Her products are each their own visual poem, beautiful and original! (Trent Blizzard) www.mayumix.com

Mushroom Magnets

Check out these mushroom shaped magnets representing 20+ species. I love the lions mane too. I got a set of 3 and they are great. Super fun gift for your fungi friends - better get your order iin quick (Julie Shreiber) https://bit.ly/mushroommagnet

Mushroom-themed Art

Suzi and Adam McCrae, a husband and wife team from the Pacific Northwest, create stickers, cards, prints, apparel and more. Rose recommended the Chlorociboria wood pendants and earrings specifically. Mike loves their Fowl Play prints, a witty take on the common names of two of our most beloved fungi will make for a great conversation piece and look sharp doing it. (Mike Snyder and Rose Tursi) https://mushroommarauder.com/

Paper Mushroom Lantern

As far as gifts go, these may not seem super snazzy – but THEY ARE! Paper lantern hanging mushroom lanterns. Throw some fairy lights in them and they make super cute kids room, dorm room, or birthday party decor (how we've used them). (Liz Weinstein) https://amzn.to/3gfXwPm

Mushroom Bowls
Mandala mushroom bowls are adorned using pyrography and sealed with food-safe oils. (Melissa Klotka) https://etsy.me/3OeZDiS

Mushroom Wallet
A fun and simple wallet for cards and cash. You can even fit an iphone in it. (Melissa Klotka) https://amzn.to/3tDvj8c

Chai and Coffee
Elevates Spores hand-makes small batches of infused chai and coffee that is delicious. They only used wild-foraged mushrooms, specifically reishi, turkey tail and chaga, from northern Wisconsin, Michigan and Minnesota. Their drinks are delicious and they also create tinctures. (Trent Blizzard) https://elevatedspores.com/

MycoCards
Gary Gilbert's MycoCards make a gr gift for the mushroom lover. These b tiful and informative flashcards are a diversion from classic ID books. Thei are three unique decks available: Am nita, Bolete and Lacarius. All three fo on Eastern North America.
(Trent Blizzard) https://mycocards

Custom-designed Mushwear
Chris "Corvidopolis" apparel, stickers and other products are rapidly becoming must-have mushwear. He describes his work as "a naturally weird collection of hand-printed apparel and art prints," including spectacular stickers and a mushroom-denizened tarot card deck inspired by "the extreme radness of the Coast Range and Cascades." (Bruch Reed) https://corvidopolis.com/

Functional Ceramic Mushrooms
World Market also has cute mushroom mugs right now, which make good stocking stuffers https://bit.ly/liddedmushroommug They also have Amanita soup tureens. (Liz Weinstein) https://bit.ly/souptureen

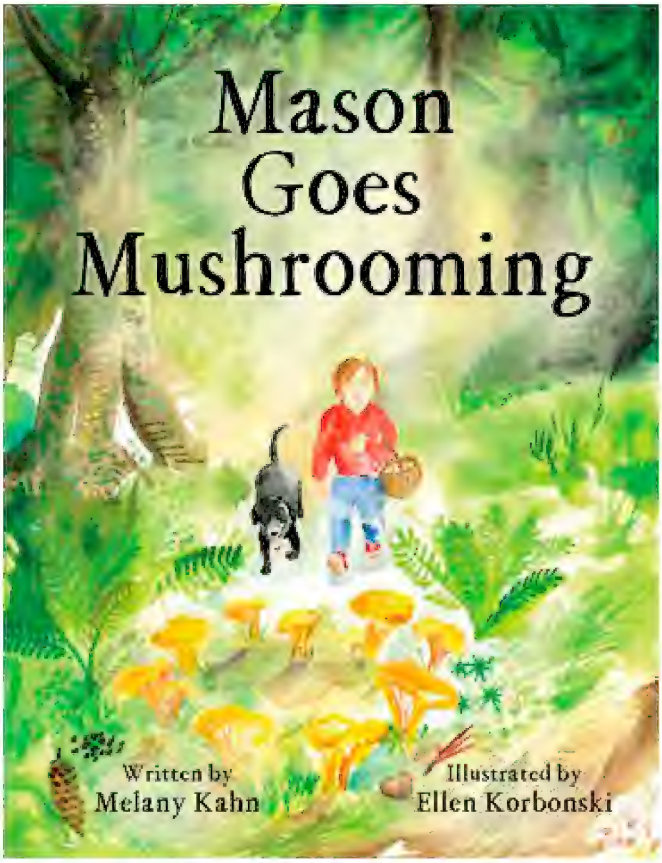
2023 Mushroom Calendar
Enjoy a new, unique mushroom collage each month of 2023 with your own mushroom calendar.
The Small Woodland Things shop also has collages, stickers and prints. (Heather Brooks)
https://etsy.me/3E9FPZA

Mushroom Watering Spike
Use mushroom-shaped glass spikes to water your houseplants. Just fill with water and they self-water potted plants (Melissa Klotka) https://etsy.me/3TKHg6D

Mushroom Aprons
Mo Bone makes stunning hand-painted aprons with mushroom themes. The perfect apparel for the chef in your life. (Eugenia Bone) Find him on Instagram @mobonestudio or https://bit.ly/mushroomapron

Mushroom Stickers
Born in the basement of an old cannery building and raised in an island shack, Jessica Lynch and Arlo Rumpff of Slow Loris cut their teeth on a steady diet of local music, landmarks and nature. Their stickers are stunning and sturdy, a perfect way to personalize your water bottle, phone or computer case with a mycological flair. (Melodie Gates) https://slowloris.com/

Mycology



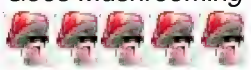
book review by Eva Gordon
Mason Goes Mushrooming, by Melany Kahn; illustrated by Ellen Korbonski
Green Writers Press (2022)
32 pages
recommended for children grades pre-K through 4th

Mason Goes Mushrooming, by Melany Kahn, is an engaging children's story that teaches about the adventure and fun of foraging in the woods. The watercolor illustrations by Ellen Korbonski are beautiful and imaginative.

The story is told through the eyes of young Mason who, accompanied by his faithful dog Buddy, hikes through the forest to hunt edible mushrooms. The theme of the book centers around the number four: Mason hunts during the four seasons for four seasonal edible mushrooms and four recipes. During each season, Mason and Buddy go on a mushroom hunting adventure, which ends with a scrumptious mushroom meal. Mason uses his observational skills to locate each edible mushroom by its characteristics and habitat. I love the combination of science education with an appreciation for the natural world. Mason is not afraid of getting dirty or of mushrooms. There are still people who are mycophobic and Mason shows the reader that there is nothing to be afraid of in picking mushrooms. Mason has obviously been raised by parents who taught him how to identify the edible mushrooms mentioned in the story. After each foray, Mason helps his parents prepare and cook the mushrooms. The recipes are well written and easy to follow.

Mason has a deep relationship with the environment, which is refreshing because in today's world, children are more knowledgeable about technology than nature. Foraging for mushrooms also teaches mindfulness. When searching for mushrooms, you focus and slow down. Slowing our pace is a skill that, in today's wired world, children should develop to lead a healthy nature-inspired life. This story helps teach children that through hunting mushrooms, they can explore the Wood Wide Web rather than the World Wide Web. Although the book is written for children, adults new to mushroom hunting will appreciate the description of edible mushrooms after the story. They will enjoy the simple recipes for cooking morels, chanterelle, lobster and black trumpet mushrooms.

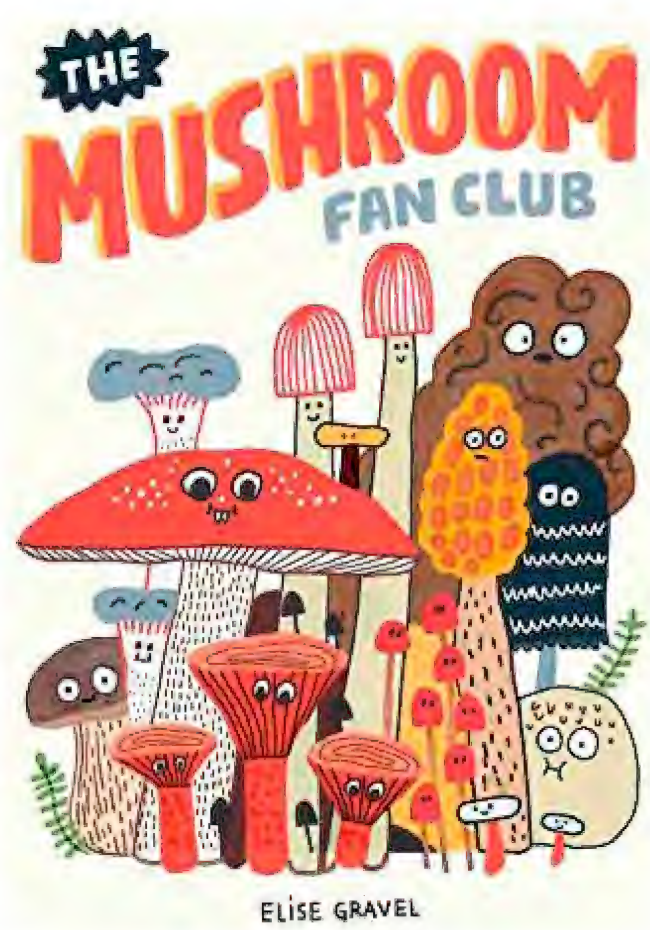
I would love to see this book in the classroom, since it covers several science standards, such as biodiversity, structure and function, information and processing and ecosystems, to name a few.

I give *Mason Goes Mushrooming* a rating of 5 out of 5 Mushrooms! 

Author Melany Kahn's Website www.mason-goesmushrooming.com

A link to purchase the book directly from the distributor is **HERE**

Please enter this code at checkout and NAMA will receive a small proceed from the sale: MGM1NTMA



book review by Liz Weinstein
The Mushroom Fan Club
by Elise Gravel
Drawn & Quarterly, 2018
58 pages

Elise Gravel is a Canadian children's book illustrator that has written kids' titles on everything from head lice, slugs and earthworms to body image and gender stereotypes. In *The Mushroom Fan Club*, the author takes us for a delightful, hilarious, magical walk in the woods, scavenging in the weird and wonderful world of mushrooms. Targeted towards 6 to 12-year-olds, this book is 56 pages of non-fiction delight packed with fungi facts, identification tips and charming illustrations that will pique or bolster the love of mushrooms in any age of reader.

I was introduced to this book by my friends' seven-year-old twins, who had recently become obsessed with mushrooms. I instantly fell in love as I read through it, giggling out loud to myself at the charming conveyance of facts and descriptions of mycology enthusiasm that any mycophile or general nemophilist would appreciate. Despite the 34-year age gap in target audience, I ran out and bought myself a copy – and though I'm also a children's book collector, I keep this particular title sitting on the shelf with my accumulation of fungi field guides and other scientific mushroom titles.

Gravel opens the book with an invitation for the reader to join her and her children on a mushroom foray. She gives various mushroom species personality through her anthropomorphized drawings, and covers topics such as parts of a mushroom, environments in which they occur, mushroom safety, and how to make spore prints. The information in the book is both scientific and funny and is obviously well-researched. She includes some Latin names (*Gyromitra*, *Lactarius*) while celebrating many of the more colorful common names (Jack o' Lantern, Plums and Custard, etc.). A good portion of the pages include various mushroom species, dedicating each spread to a different fungus (much like a children's "My Very First…" mushroom guide, if that existed) and features tips for identification, fun facts (some boletes turn blue! Some mushrooms produce a liquid that looks like milk if you cut them!), and other helpful signifiers of various species. Gravel also instills rules of good naturalist etiquette by stressing the importance of protecting the environment in which mushrooms grow and being mindful of other beings that share the mushrooms' ecosystem. After all, humans aren't the only ones who love and rely on mushrooms for many things! I am impressed by this philosophy and how the author is able to convey some pretty complex information in a simple, fun way. Her googly-eyed *Amanita* explains the parts of a mushroom without being goofy, in a simple diagram that will keep the attention of any kid with an aversion to scientific explanation.

Gravel's writing style delights both kids and adults: take for instance her description of morels: "They look like an alien's brain…and when I find some, I jump all over the place and squeal. It's silly but I can't help myself." Now, dear mushroom lover, tell me that squeal hasn't come from you upon spotting your first morel of the season. I really have nothing negative to say about this book, other than I'm disappointed that there's no accompanying set of bedsheets or socks or dish towels available featuring Gravel's illustrations of fungi. Her writing and illustration style, combined with the evident research and enthusiasm with which the book is written, make me want to delve into her other titles. I highly recommend this book for any mycophile's or children's book collection and am happy that Elise Gravel has created such a lovely, wholesome, entertaining introductory source for wee ones curious about the fantastic world of fungi and the great outdoors.

(photos by Liz Weinstein of book cover and inside page of *The Mushroom Fan Club* by Elise Gravel)

recommendation by Bruch Reed
MycoCards
created by Gary Gilbert et al, 2022
https://mycocards.com

One silver lining of the COVID crisis has manifested in Gary Gilbert's development of a new genera-specific learning tool: MycoCards. With 55 species per card deck, these easily carried, moderately priced teaching tools are replete with succinct macroscopic ID info, offering an alternative to field guides – most of which typically cover only one third the number of species available in each deck of these engaging flashcards.

Gilbert has teamed up with some great mycologists to create up-to-date species descriptions. Each MycoCards deck features 3 to 4 color photos, illustrating the most pertinent ID features. Gary worked with top east-coast expert Bill Neill, author of *Mushrooms of Cape Cod & the National Seashore* (Syracuse University Press, 2001) for the MycoCards deck "Boletes of Northeastern North America." Intrepid mycotourist Daniel Winkler consulted on the resplendently colorful "Boletes of Western North America," which covers Boletales west of the Rockies. For the "Amanitas of Eastern North America" deck, he had the pleasure of collaborating with top field-identifier Jay Justice (MO-NAMA 2022 coChief Mycologist) who, with Dr. Britt A. Bunyard, coauthored *Amanitas of North America* (FUNGI Press, 2020). The newest deck, "*Lactarius* of Eastern North America," was created with the able assistance of Dianna Smith.

For those who find field guides cumbersome to carry, MycoCards offer a convenient, incisive learning option. Try them out!

book review by Zachary Mazi
Cooking with Mushrooms: A Fungi Lover's Guide to the World's Most Versatile, Flavorful, Health-boosting Ingredients
By Andrea Gentl
Artisan (2022)
164 pages

I recently had the pleasure of meeting Andrea Gentl in La Mixteca, a large region in the North of Oaxaca State. Just outside of Tlaxiaco, my fiancé Kimberly and I had taken one of our Mexico Mushroom tour groups to "La Fiesta de los Hongos Mixtecos," a two-day culinary-forward event in the woods featuring some of the best chefs in all of Oaxaca. During the foray, surrounded by wonderful vendors and all the normal things one might find at a mushroom festival, Andrea and I connected on all things cooking. Of course the conversation drifted to this book, her most recent venture, after a career spent photographing food for some of the best chefs in the world, from her early day working with Julia Child to a rather impressive client list including *Bon Appetit, Martha Stewart Living,* Ten Speed Press and Häagen-Dazs, to name only a few.

Like many of us that have been immersed in the world of fungi for more than a decade or two, Andrea's passion for mushrooms has been quietly growing under the ground and now that it is hard to glance anywhere without seeing the hyper-trending topic of fungi, she is emerging into the sunlight with an absolutely fantastic addition to the mushroom cookbook pantheon.

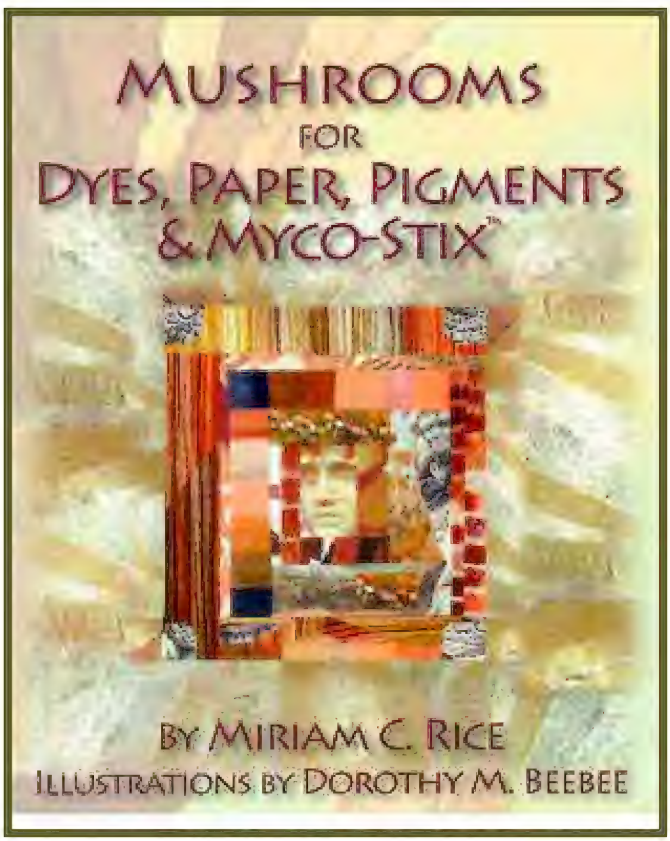
Cooking with Mushrooms is organized into seven easy-to-understand and progressive chapters: Chapter 1: "The Mushrooms," a brief introduction to mushrooms, includes not only instructions for drying and making mushroom powders (which feature extensively throughout the rest of the book), and a few tips for growing mushrooms at home (with purchased kits) with limited, but pertinent fungal terminology – perhaps the only technical part of the book – along with a detailed description of the twenty cultivated and wild mushrooms she uses; Chapter 2: "Always on Hand in the Larder" (what I would consider to be the mycelial foundation of the book), provides fabulous and inspiring ideas for utilizing both fresh and dried mushrooms to create her pantheon of pantry basics. These brilliant pieces are subsequently assembled and brought to life in the rest of the book: mushroom powder mixes, adaptogenic honey, broths, condiments, sauces, mushroom-powder-enhanced nut butters, delicious non-mushroom accompaniments and so much more. The body of the book is made up of four chapters consisting of dishes, arranged by time of the day: Chapter 3: "Mushrooms in the Morning;" Chapter 4: "Midday, Mushrooms;" Chapter 5: "Mushrooms for Cocktail Hour;" and Chapter 6: "Dinner from Mushrooms;" and a final chapter to sweeten the deal: Chapter 7: "The Sweetest Mushrooms," creative desserts and sweets that will surprise even the avid mushroom enthusiast with new sweet uses for otherwise savory mushrooms. These five chapters are packed with incredibly simple yet creative recipes, seamlessly blending several global cuisines while remaining firmly rooted in the author's Italian kitchen upbringing.

Choosing a recipe for this review, however, posed no problem. Having spent an unexpected 1.5 years in Thailand during the first part of the pandemic, Andrea's "Mushroom Larb" (p. 122) was an irresistible choice. "Larb" (or laap) means minced, and this dish from the Isan region of Thailand is generally minced pork, boiled gently, with garlic and spices, and drenched in lime and fish sauce, tossed with fresh shallots, plenty of chilies, cilantro or mint, served in lettuce or cabbage cups. We ate larb just about every single day we lived in Thailand. As with all recipes in her book, Andrea bends her version with her own additions – maple syrup instead of palm sugar, olive oil, ginger and chili-garlic sauce (sambal) – found in any Asian market (the other sriracha) – and of course mushrooms instead of meat, in this case *Agaricus bisporus*. I also used some 5-year-old queen boletes from my pantry, as well as some of this year's dehydrated *Amanita basii* from the mountains of Oaxaca in addition to the cremini. For me personally, and this has nothing to do with Andrea's masterful recipe, I do prefer the meat version of this dish, primarily because it is a clean acidic and chili dish; however, laap muang, the northern Thai version of larb, would actually be perfect for this crafty method of both sautéing and then oven-dehydrating the mushrooms, as it plays more into the deep and umami character that the mushrooms impart. I will definitely make this dish again, but will wait until chanterelle season to use a mushroom that, when cooked, has more of the boiled-pork appeal than the meaty and wet-soil-tasting cooked cremini.

There are several elements to this wonderful compendium that are quite surprising. First, this is not a book about wild mushrooms, and though she does feature several (chanterelles, porcini, morels, truffles and matsutake) in her recipes, she is very clear that, as the title suggests, this book provides a guide and personal experience on how to cook with regularly available mushrooms, and use them on an everyday basis, from granolas to infused liquors (including mezcal, of course). She emphasizes that harvesting wild mushrooms must be learned elsewhere. Second, this book does not delve into mycology at all. In fact, she does not include the Latin binomial names of fungi anywhere in the book, even for the medicinal mushrooms, which she seamlessly incorporates. Third, I loved that these not-normal-

ly-considered-culinary mushrooms are used in her kitchen larder without skipping a beat: reishi, chaga and turkey tail mushrooms, used in powdered form, appear throughout her dishes. Unlike most appearances of these adaptogenic fungi, she details the flavors and includes them as crucial parts to the overall recipes.

Andrea's familiarity with all aspects of cooking give this book an authority without ever seeming out of reach, and her recipe selection reveals a true mastery of flavor and diversity of global tastes. As a chef myself, what most stands out to me is her ability to communicate not only the ease of gourmet home cooking, but also her own style and flair clearly honed while working with literally the most gifted food artists in the world over the course of her career. Trying not to be too effusive, I simply loved this book: each recipe is accompanied by her and her husband's elegant and simple photography, using her own serving ware and capturing the essence of each dish, often in a single photograph. This book is a must-have for any home cook, and I dare say, for any mushroom-enthusiastic chef as well.



book review by Marion Richards
Mushrooms for Dyes, Paper, Pigments and Myco-Stix
by Miriam C. Rice and Dorothy M. Beebee
Fungi Perfecti (2022 reprint)
162 pages

This book is a pleasant introduction into the world of mushrooms outside of the culinary realm. We must be reminded, however, that we are not the first culture to utilize dye pigments or other uses with mushrooms.

The book begins by highlighting memorable events of the International Fungi and Fiber Symposium from its induction in 1980 in Mendocino, California. Having had the opportunity to attend the most recent IFFS here at Fort Worden, Port Townsend, WA, USA, I can say this week-long event is like no other. Classes on dyeing with a robust list of mushrooms, spinning mushroom-dyed wool, Coast Salish weaving, tapestry weaving, paper making, punch-needle portraits, needle and wet felt-

ing, resist paste and eco-printing…the list goes on. There was something for everyone and most activities catered to the beginning mushroom enthusiast.

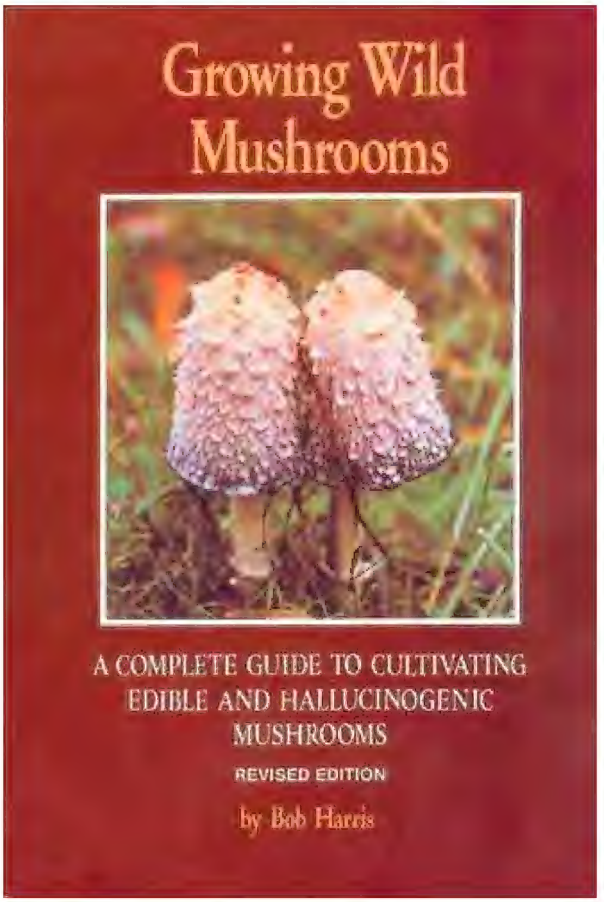
The authors bring fresh light to mushroom pigments, what to look for, identification and so much more. Beebee's illustrations really showcase what the actual mushroom looks like past its Latin binomial. Rice ventures into the chemistry and other information that makes up our highly sought after fungal finds. Which fibers work best, how to process them, and final prep before mushroom dyeing is discussed in great detail to ensure that you are well set up for the best results.

Paper made solely from mushrooms is also a real crowd pleaser and the book delves into the different mushrooms that are best for paper making. This process can be done with minimal ingredients and tools. I had the opportunity to make paper at the most recent IFFS. There are so many polypores that are great for paper making, and many of them are species that tend to stay around all season, so paper making "supplies" can be collected well into the depths of winter time.

Rice lastly discusses making paints and Myco-Stix, which gives you the opportunity to use the very last bits of an exhausted dye bath. Nothing goes to waste!

If you plan to delve into the many other uses of mushrooms, this book is a great starting point. There are updated names to mushrooms, so some prior knowledge will help you in the process. The hardest part for any of the mushroom arts is by far the quest of finding the mushroom itself. Some are found in great abundance here on the West Coast, while others are found in such small quantities that years of saving the dried dye species is in order.

This book is often listed at very high prices on the secondary market due to the fact that it was out of print for a time. It is now back in print and available at Fungi.com at regular cover price. Purchase at https://bit.ly/mushroomsfordyes


Growing Wild Mushrooms
A COMPLETE GUIDE TO CULTIVATING EDIBLE AND HALLUCINOGENIC MUSHROOMS
REVISED EDITION
by Bob Harris

book review by Tavis Lynch
Growing Wild Mushrooms
by Bob Harris
Homestead Book Company (1976)
86 pages

Growing Wild Mushrooms, by Bob Harris, is a beginner's guide to cultivating mushrooms from wild specimens. It covers various techniques and recipes for low-tech mushroom cultivation. This was my first book on mushroom cultivation, so I had already read it numerous times. I scoured deep and forgot everything I already knew to write this review.

Harris does a great job of explaining all the methods of cultivation, equipment creation and sterile technique one would need to start with some simple grow projects. At a mere 86 pages, he manages to pack a lot of great info into this classic. The first section describes what a mushroom is and how they grow in the wild. Ignore the fact that mushrooms are referred to as plants in this book, as it was written a long time ago. We have certainly come a long way in that department. The bulk of the book is comprised of techniques and equipment he uses to obtain cultures from wild mushrooms and turn them into a crop of

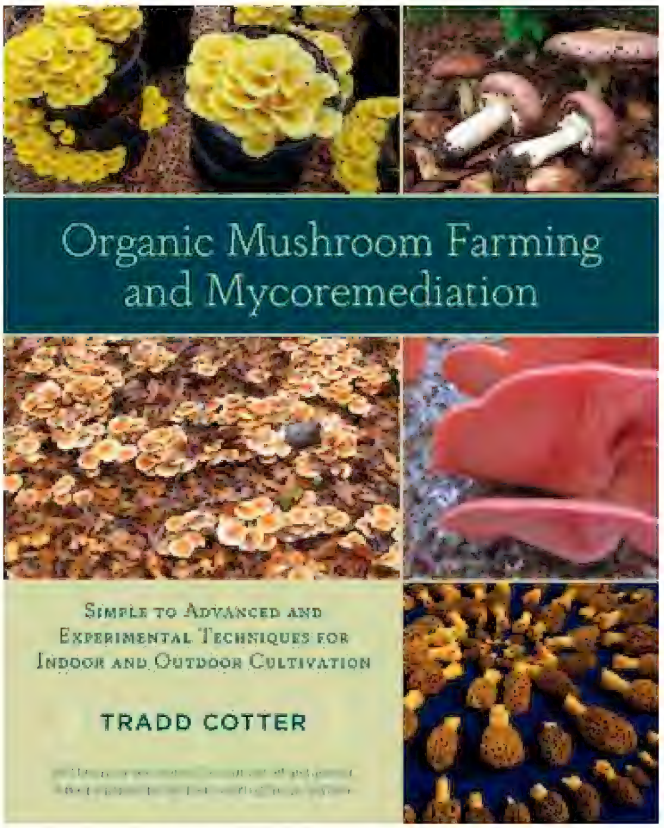
usable size. He does delve into the world of *Psilocybe* cultivation and the final section of the book is devoted to that genus.

I have tried every technique in the book over the years and can vouchsafe that are all tried and true. The world of mushroom cultivation has come a long way in terms of new methods and better equipment, but the basic ideas all stem from the old-fashioned modes. There are plenty of illustrations to help visualize his processes and it is written in a very direct manner.

This book has many high points. The illustrations are very well done, thanks to Susan Neri. The writing is concise and very easy to follow. I have read many cultivation books, and this concision is not always the case. The length of the book can be viewed as a positive too; it is short and to the point. All of the information is laid out in a logical, useful order, and it is perfect for the beginner and for the low-budget hobbyist.

The only downsides I find are the outdated information and the low-quality photos. Both faults are simply because of the era in which the book was written. Neither "flaws" are enough to prevent me from recommending this book to others.

In summation, this book is excellent. There are newer and more complete books out there, but they can be overwhelming and sometimes even excessive. This book is very well written, full of helpful information, and perfect for anyone looking to get into mushroom cultivation. I would not hesitate to recommend it to anyone.


Organic Mushroom Farming and Mycoremediation
Simple to Advanced and Experimental Techniques for Indoor and Outdoor Cultivation
TRADD COTTER

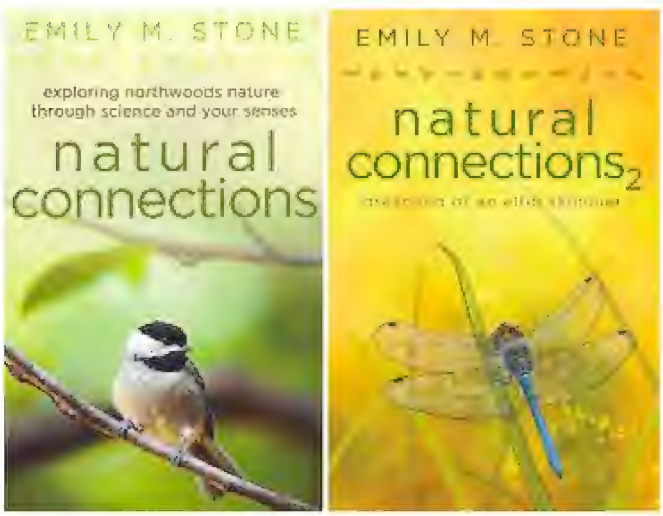
book review by Mike Snyder
Organic Mushroom Farming and Mycoremediation
by Tradd Cotter
Chelsea Green Publishing (2014)
382 pages

Tradd Cotter's now-classic book deserves a spot on any mycophile's mushroom bookshelf. I foraged and studied fungi for about ten years before I bought this book and I wish I had not waited so long! I have a good friend to thank for convincing me I should be growing mushrooms in addition to foraging for them and recommending this excellent book to me.

For a while, there seemed to be a bit of a separation between mushroom foragers and mushroom cultivators, but I'm happy to see that is currently changing as many of us are embracing all aspects of fungi and closing that separation. This book has likely been responsible for changing many of my fellow mycophiles' lives by broadening the scope of their love for and connection to the world of fungi. Cotter does an excellent job at presenting a topic that can initially be a bit intimidating for some people in a way that is informative, yet also approachable and inspirational.
The book covers both outdoor cultivation and indoor cultivation from spores to harvest and tends to focus

on low-tech methods, making success a very achievable goal for anyone to grow some mushrooms at home. Many processes are laid out step-by-step with accompanying photos and diagrams, making for a compendium of knowledge that has been indispensable for fledgling mushroom cultivators.

In addition to the cultivation processes covered, there are chapters on the most commonly cultivated mushrooms, some information on cutting-edge research (including morel cultivation), and a section providing a thorough introduction to mycoremediation. If you are interested in taking your interactions with fungi to the next level, learning to collaborate with them using this book should be high on your list!



book review by Mariah Rogers
Natural Connections: Exploring Northwoods Nature Through Science and Your Senses
Natural Connections 2: Dreaming of an Elfin Skimmer
by Emily Stone
Cable Natural History Museum (2016, 2019)
293, 321 pages, respectively

When Emily Stone writes of natural connections, she includes herself – and all of us – too. Senses and observations, facts and figures are caught in the prism of one woman's awe, curiosity and delight, then cast out for us all to see. She is aware of her readers, and anticipates what of nature we most love to draw us in – and precisely what we have forgotten to notice – calling us back outdoors to experience it all over again. This is a true artist's nature writing, kaleidoscopic visions rather than simple report. Any visual artist knows this process well. A shadow we first think of as black will not be black, but indigo, even if cast by a chanterelle that is a bright yellow onto a verdant forest floor. This same appreciation for our senses, both external and imaginative, sets *Natural Connections* apart.

Emily Stone is a naturalist and educator deeply engaged in her community. This engagement is present in those who support and those who most benefit from her writing. When her first book was published, locals and friends chipped in so printing costs were covered and all proceeds would directly benefit the Cable Natural History Museum (CNHM). Our mycological community has become a part of this network. Many of you met Stone at the 2017 NAMA Annual Foray or helped benefit CNHM this past year at our WMS/NAMA 2022 Northwoods Regional Foray in those same exceptional Northwoods.

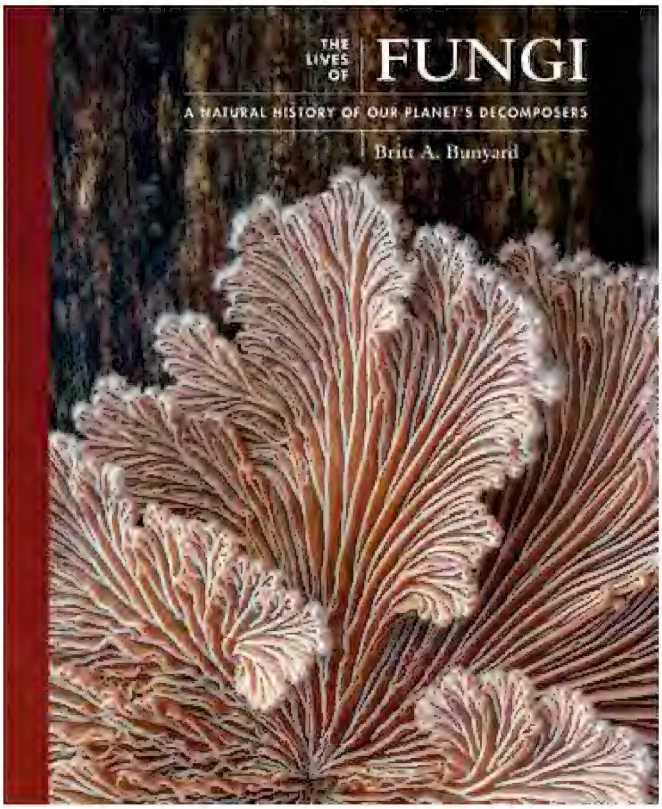
The books are compilations of the author's freely available works, published in newspapers and on her blog. They are gifts you can use to share her work far and wide, without any cost limiting that generosity. Still, many qualities recommend the printed books – the arrangement of the pieces, the tangibility of the paper copies, and the inclusion of many illustrations by children inspired by nature and the stories Stone tells. These illustrations are of particular interest to the parent, guardian or teacher for their capacity to engage children who may be too young for a chapter-book otherwise. Finding their colleagues with drawings in print inspires kids to draw along to the stories, too. The effect is not limited by age. When reading Stone's work, I was moved to begin writing regularly again and to pull out old notebooks to sketch without a plan or purpose beyond my experience of that moment within nature.

Being relatively recently published, with a following principally situated in the not-so-populated north, these books are not nearly as well-known as they rightly should be. I was unable to find them in my local library system in Milwaukee County. That can change; I have now recommended them to my local librarians, and to all of you. This is not to say *Natural Connections* are

not widely appreciated! *Natural Connections 2: Dreaming of an Elfin Skimmer* won best book in the Outdoor Writers Association of America's 2020 Excellence in Craft Contest.

When you navigate to the Cable Natural History Museum website, where the Natural Connections books can be ordered (https://www.cablemuseum.org/books/), you are also provided with Wisconsin and Minnesota bookstores carrying her works. Exploring the site further, there is a podcast of freely available audiobook chapters (https://podcasts.apple.com/us/podcast/natural-connections/id1474276116) and the author's blog (http://cablemuseumnaturalconnections.blogspot.com/) with photos and videos accompanying the writing. With each book purchase, an author's signature and personal inscription is available on request.

As mycologists, we are fond of referencing the mycelium to speak of the wisdom of branching, distributed networks, and so many connections you can barely keep count. Emily Stone's writing and our own personal practices with nature writing, art and phenology take us on the cycles and leaps we need to think like an ecosystem, create like an ecosystem, and move like one too.



book review by Roz Lowen
Lives of Fungi: A Natural History of our Planet's Decomposers
by Britt A. Bunyard, PhD
Princeton University Press (2022)
288 pages

What an interesting book! It is clearly written, beautifully illustrated, and up to date. It covers way more than decomposers. Fungi have diverse lifestyles. They can be destructive as well as beneficial. Almost all plants have a fungal partner. Decomposers are only part of the story.

The author, Britt A. Bunyard, PhD, as a mycologist and editor of *FUNGI Magazine*, is especially qualified to write a book that is full of accurate biological information written in a descriptive manner about Kingdom Fungi. A few of the topics from the magazine are summarized here, where they illustrate a certain lifestyle. For instance, orchids and their relationships with fungi were featured in a recent issue of FUNGI (FUNGI Magazine - Vol. 15, No. 3 - Summer - 2022). Some of that fascinating story is related here.

Lives of Fungi is a mycology text without very many technical terms. It is an overview of Kingdom Fungi, emphasizing relationships between organisms. There are other descriptive books about a diversity of fungi like Lawrence Millman's *Fungipedia* (Princeton University Press, 2019), or George W. Hudler's *Magic*

Mushrooms, Mischievous Molds (Princeton University Press, 1998). Some of the same topics are covered in the three books but with different approaches. Some mutual topics are about ergot, ambrosia beetles, the Irish potato famine. Also, for instance, the history of Penicillin, the loss of American Elm trees to the Dutch elm disease and the history of the American Chestnut blight. All these interesting stories are brought up to date in *Lives of Fungi*.

This book has many short descriptions from most of Kingdom Fungi. Besides basidiomycetes and ascomycetes, there are other fungi included like chytridiomycetes (amphibian disease) and oomycetes (*Phytophthera*) that impact our environment.

The intent of the book may be summarized in the quote used twice (p. 6 and p. 172): "Everything depends on everything else." Most entries are introduced as a saprobe, or a parasite or a mutualist. These relationships are explored. Several entries are about endophytes, fungi living within plant tissues. For instance, *Ophiocordyceps sinensis*, the caterpillar fungus so prized in China, lives part of its life as an endophyte in a species of grass in Tibet. You must read the book to get the rest of the story.

There is a minimum of scientific terms. The English is clear and to the point. For example, there is a simple explanation on p. 48 about reproduction involving a complex process where spermatia, (unfertilized spores of *Epichloe elymi)*, are distributed by flies. Most scientific terms are defined in the text but there is a three-page glossary to supplement explanations. Common names for fungi are used where they exist. Current scientific binomial names are given, often with reference to former or original names.

The beautiful photographs are mostly enlarged, many on a full page. I especially like the photograph of *Monotropa uniflora* on a black background showing the leaf scales on the stem. There are also many line drawings showing life cycles or other features.
The contents are as follows: Introduction; What are Fungi?; Reproduction; Chemistry and Physiology; Saprobes and Parasites; Pathogens, Pandemics and Scourges; Mutualistic Symbionts; Fungi and Humans; Fungi and the Future. A few topics follow. Besides the glossary, they are as follows: Some Useful Resources, Index and Acknowledgements.

Some subtopics, like those in the reproduction chapter, are Gastroids, Zoochory, Insect Symbionts, Mimicry, followed by fascinating examples of reproduction in several other fungi. After the first few introductory chapters, this book can be read in any order because most of the fungi are described in two-page spreads that are self-contained. Most do not depend on previous or further topics.

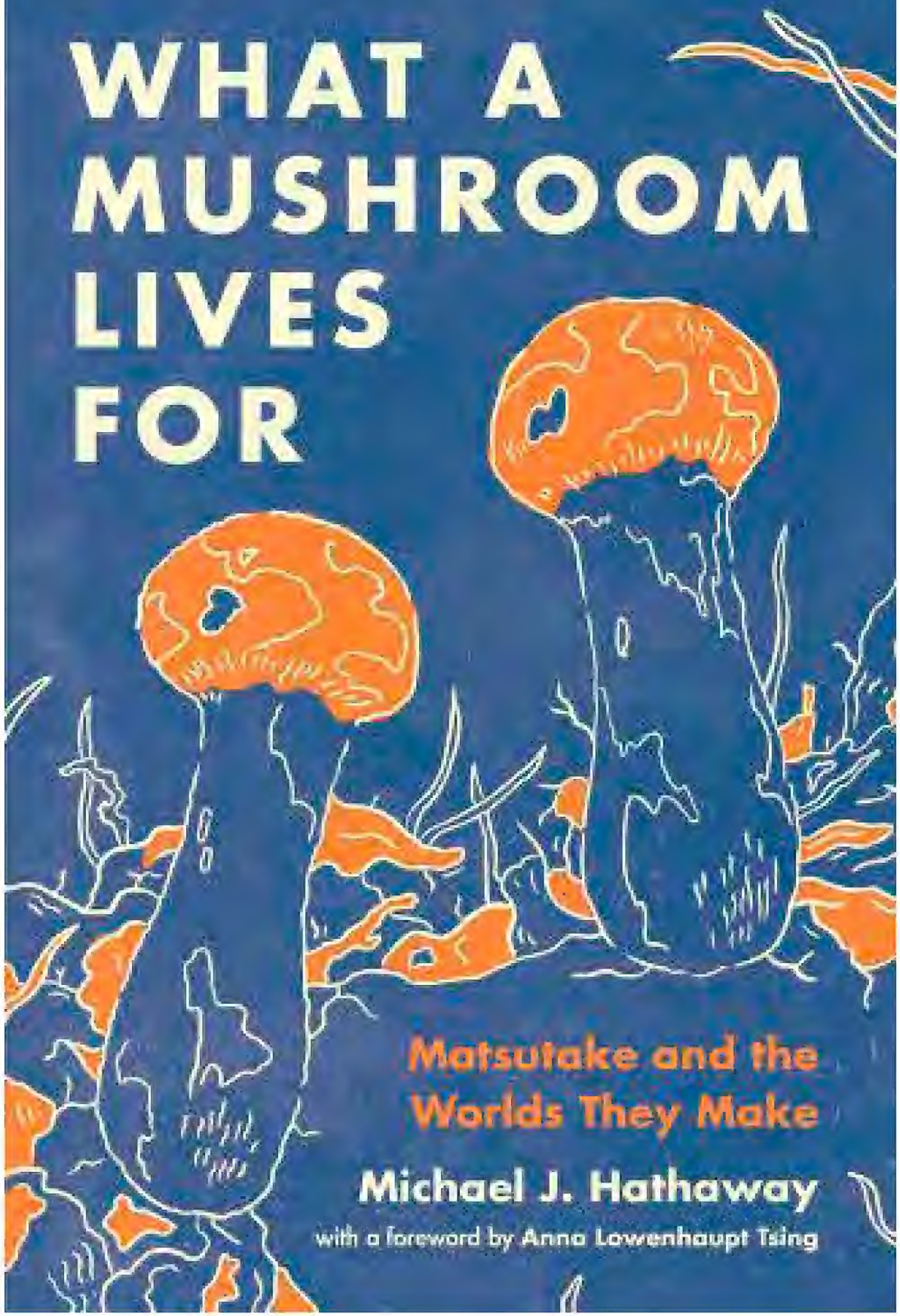
Many of the fungi featured are emphasizing the unusual. For instance, there is a description of fungi that fruit under water. Another is called a "flying saltshaker fungus." The fungus invades a cicada insect and causes the rear of the insect to fall off so the fungus spores get sprinkled around as the insect continues to fly. *Sporophagomyces chrysostomus* is an unusual ascomycete that occurs attached to the pores of *Ganoderma*. The asco consumes the basidiomycete's spores. *Nectriopsis violacea* grows on the slime mold *Fuligo septica,* causing it to appear violet in color instead of the normal tan. Another unusual fungus, *Arthrobotrys dactyloides*, a lasso fungus, captures nematodes moving through its fungus loop. The loop attracts, inflates and captures the nematode by squeezing it and subsequently digesting it. There are many other interesting fungi in this book.

I learned about some fungi that I had not heard of. *Paurocotylis pila* is a scarlet truffle from New Zealand that looks like a berry. It is described in the section about reproduction. *Cyttaria* is an edible ascomycete from South America. It is part of the story in the chapter entitled "Chemistry and Physiology: Intoxicating Fungi." I didn't know that sugars from the fruitbody are fermentable. In the chapter entitled "Mutualistic Symbionts," the ancient association of a fungus with termites is described. I didn't know that *Termitomyces titanicus* could become as much as 3 feet in diameter, the largest known mushroom. Hence the common name, Titan Mushroom.

I do have some criticisms. The main one is that the print is too small. I needed a magnifier for the picture legends, which are even smaller. I also think the organization of the topics could be improved. For example, psychoactive mushrooms are covered in two different, separated pages. St. George's Mushroom (*Calocybe gambosa*), an edible mushroom from the UK, is placed in the section called "Pathogens, Pandemics and Scourges." I don't think it belongs there.

This is a beautiful book. I recommend it to anyone interested in fungi and their fascinating lifestyles. It would be especially useful to introduce a person to mycology because there is little terminology needed to understand the relationship of fungi to each other and to the environment.. "Everything depends on everything else."

WHAT A MUSHROOM LIVES FOR



Matsutake and the Worlds They Make

Michael J. Hathaway

with a foreword by Anna Lowenhaupt Tsing

book review by Bruch Reed

What A Mushroom Lives For: Matsutake and the Worlds They Make
by Michael J. Hathaway
Princeton University Press (2022)
296 pages

I often refer to fungi as "humblingly vast;" *What A Mushroom Lives For: Matsutake and the Worlds They Make*, by Michael J. Hathaway (Princeton University Press, 2022) nestles nicely against my mycophilic mantra as it challenges readers to rethink our most basic understandings of these unfathomable organisms and, in so doing, our very human selves. Hopefully, your mind is already open to the neverending astonishment that fungi provoke; if so, this book will make you a more thoughtful (and perhaps even more intelligent) mycophile. Hathaway is an important thinker who is on to something when he asserts that "Some scholars... have begun to engage with fungi to open up new realms of thinking;" this is the work, folks! The mushrooms deserve it and so do we.

Liveliness. Performance. Movement. Agency. Agenda. Creation. Orchestration. Manipulation. Control. World-making. Do you think of mushrooms in these dynamic, powerful terms? If not, Hathaway contends that you should, that if we mushroom people have not already done so we must begin to reimagine fungi as actors in active roles, must acknowledge that mushrooms are beings that possess agency, even ambition! The book functions as forthright chiding (at times veering toward indictment), of the vaunted 18th Century Enlightenment that gave rise to the various edifices of modern science, calling into question the legitimacy and even veracity of the scientific edifice (as inextricably linked both to the English language and notedly mycophobic British culture) that we Western scientists have created through our traditional use of a rigidly anthropocentric filter to study all phenomena we define, as incomparable poet Emily Dickinson puts it, "...the Culprit – *Life!*"

Despite the challengingly heady early chapters, it is capably and with an enthusiastic yet well-considered voice that Hathaway makes his case for dethroning the human-as-master perspective and acknowledging that all forms of life possess their own agency. His unabashedly heartsleeved love for the book's subjects, for his many cited colleagues and for thought itself maintain the reader's engagement as he guides us toward consideration, if not immediate and wholesale acceptance, of his fundamental premise: that fungi are are actively -- perhaps even consciously, if one will only surrender the human-centered definition of consciousness -- making their own worlds through manifold interactions with other species. Along the way, he deftly challenges such widely held assumptions as that capitalism equals progress, that progress is inherently beneficial, that humans are independently superior to other forms of life. He repeatedly demonstrates that the bioscience language we have developed, while essential to bringing us to the understanding we have achieved of the world and our place in it, also imprisons us within a problematically limiting framework that obscures and prevents us from ascending the next rung of our understanding of the other organisms with whom we coexist (yes, I said "whom").

Hathaway's correct assertion that "Even now... almost all professional mycologists [in the West] were trained in a botany department," reminds me that I have previously encountered the possibility that purportedly nonsentient organisms may nevertheless be fairly described as actively manipulating human behavior, including in Michael Pollan's *The Botany of Desire: A Plant's Eye View of the World* (2002), which details four plant species' strategies to succeed through changes they have cunningly wrought upon human behavior. I am also put fondly in mind of Thomas Palmer's surprisingly heartbreaking *Landscape With Reptile: Rattlesnakes in an Urban World* (1992), which chronicles the northeastern-American destruction of "dangerous" serpents due primarily to human ignorance and cruelty, and the tragically avoidable consequences arising from this arrogant moral crime. Hathaway, however, goes much further in his assertions than those with which I have been confronted before, demanding as he does that we humans subjugate our own "superior" perspective if we hope to learn what fungi have to teach.

"The tools we make to build our lives:
Our clothes, our food, our path home...
all these things we base on observation
on experiment, on measurement, on truth"
--- Neil Gaiman, "The Mushroom Hunters"

The tome opens with this Neil Gaiman snippet, deliberately posited as a stark reminder of the precariousness facing the accumulation of human knowledge in our particular time, in which the pursuit of objective truth so vital to our evolution as a species -- as well as to the relative stability of climate, both in terms of the weather and the political forces that permit our survival -- is under attack along innumerable fronts. In providing the book's foreword, Anna Tsing (whose 2015 *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins,* which I did not read in preparation for this review, was the first in what is promised to be a trilogy of books by members of the Matsutake Worlds Research Group (MWRG); Hathaway's is the second), Tsing hearkens back to her own work as she introduces Hathaway's effort, postulating that "Perhaps it was the sense that we had stumbled on something fascinating but really obscure that allowed us to completely underestimate the size of the project on which we had embarked" (she does not imbue context by providing a date of embarkation, but then aren't all great journeys lacking both beginning and end?). Tsing says that humans are now "making up for lost time in getting to know the creatures around us...It turns out that most organisms cannot develop into themselves without working with other species."

The book's first half goes on to illuminate what Hathaway styles as the social lives of fungi, both with and, importantly, without considering fungo-human interactions. After Tsing's foreword, Hathaway gives a preface, then an actual introduction, expending a significant amount of verbiage to position the book within the context of other ecology writings and the field of ecology in general. He takes 42 pages to butter us up for the main course: his effort to get us all aboard the intellectual-subscription train to his (and MWRG's) valuable new way of interpreting the world of life around us (it must be noted that he generously credits many other thinkers, including Indigenous and other nonWestern minds, with inspiring his path; the lengthy Appendix, Notes, Acknowledgements and Index are wonderfully worth reading!). The cost of this ticket is but our voluntary self-removal from the supercilious notion that we humans occupy the pinnacle of comprehension, that we are the only entities that make our own world whereas "lesser" forms of life merely respond to stimuli and to us.

Along the way, Hathaway expresses great consternation and condemnation of "The Great Divide" (in scientific literature) of humans from other forms of life, which he describes as having "disastrous consequences" in that we limit the potential of interspecies communication. He demonstrates abiding concern with semantics as a measure of the scientific accuracy of writings both past and present, a concern he goes on to validate successfully throughout the book; a prime example is his eschewment of the term "anymal," (which sets me all a-smile to think of prolific and distinguished mycoauthor Arleen Bessette's delightful application of the term "critter" to mushroom specimens, particularly those that engender taxonomic conflict in various online fora). Later, Hathaway provides a thoughtful elucidation of the conflict over the active and passive ("mechanistic") models of organisms' ecological behavior.

Following are some of the terms essential to joining Hathaway's new thoughtversation:
worldmaking -- the active, mutually conversant, potentially conscious communication/manipulation by one species with other species. The author poetically sums up this philosophy when he states, "The presence of one life inflects the presence of another, in complex webs of relations that are in the process of becoming."

cumulative agency -- "the uncountable billions of actions by billions of individuals through time."

umwelt -- Jakob von Uexküll's (1864-1944) German term used "to describe the world as sensorially experienced by particular organisms."

anthropo-exceptionalism -- the generalized

(and false) presumption not merely of humans' inherent superiority but also of our superiority's inherent singularity. Y'all, we humans ain't all that and we ain't all that new; be told.

resourcism -- the prevailing notion that nonhuman forms of life should be viewed, defined and valued according to their usefulness, or perceived lack thereof, to humans.

biosemiotics -- this term repositions mycology as a grand conversation through, because of, and despite history, the language of which is unique not just to a species but also to a given living individual, and communicated by that species or individual to other species and other individuals, leading inevitably to a conclusion -- for me and, I think, for the author -- that mycology comprises a rather sadly one-sided communication because we humans adhere stubbornly to our own language and are thus deafened to the language of other organisms, most especially the heretofore inscrutable language of fungi.

These and other new vernacular terms are worth the mental energy it may take the reader to digest the concepts provided in the first few chapters. Don't worry if you don't quite grasp them upon first reading (I didn't), because the author returns to explore them many times.

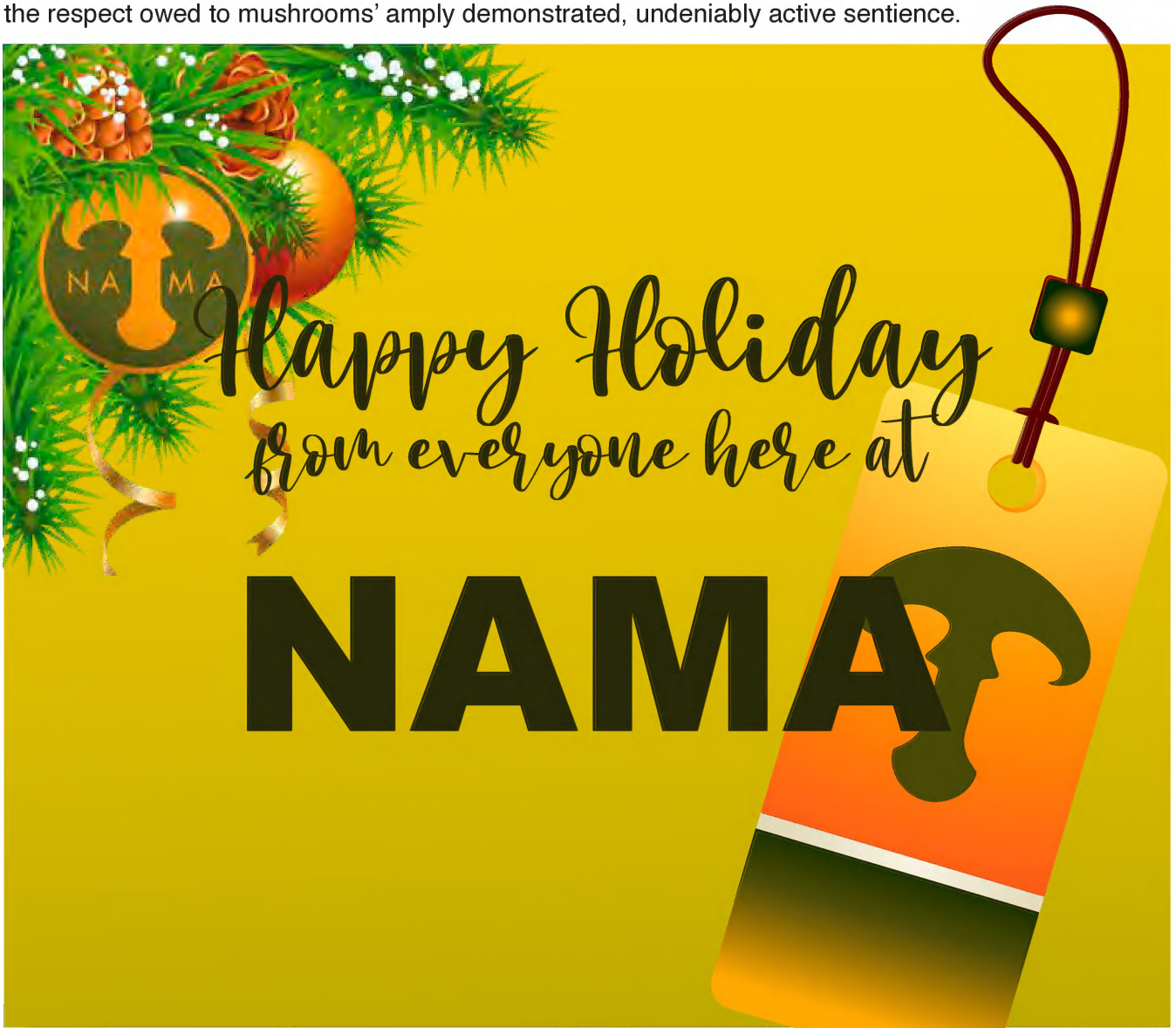
Chapter One goes macro, describing fungi's generalized, massive, almost unfathomably important involvement in creating Life As We Know It, with our human life effectively revealed as an unintentional byproduct of the successful diversification of fungi both in terms of genetics and lifestyle. Chapter Two "explores the ways in which fungi seek each other out, along with nutrients... and how they engage with insects and mammals." Hathaway at first set out to tell the story of matsutake in the active voice, from its inception as a spore, through its life cycle, until it became a distinct fungal organism producing spores itself. He discovered that he "could only find glimpses into moments of its life" as Western scientific literature on matsutake is is woefully sparse (late in the book, he briefly laments the horror of arriving only a month too late to prevent a major Japanese researcher's destruction of file cabinets full of matsutake writings).

Chapter Three "shows different ways that some Western scientists have tried to explore the inner worlds of various species," diving deep on the important concept of umwelt; it is in this chapter that Hathaway insists we open our sentient selves to the sentience of mushrooms, to their own particular and heretofore unfathomable "sliver of reality," thereby acknowledging that even our *senses* of reality may be inferior (or at least in large part extraneous and irrelevant) to the senses of fungi. Chapter Four lays out the history surrounding Japan's "mushroom tragedy," which set the stage for the sudden, revolutionary explosion of matsutake hunting in Yunnan, China; (a quibble: the author herein describes the global range of matsutake but rather glaringly fails to mention significant populations in Colorado, Wisconsin and Massachusetts). Chapter Five goes into the evolving dynamics of one Yunnan village's discovery of the Japanese matsutake market and how the Yi people have changed their economic and social rhythms to accommodate matsutake's capricious sporulating schedule. Chapter Six centers around Tibetan villagers' corollary reaction to Japan's cultural hunger for matsutake and how Japanese enthusiasm has effectively engineered a "reverse diaspora" of Tibetans returning home from India and elsewhere in order to build a thriving new matsutake economy; whereas the former Tibetan villages' economies had revolved for millenia around subsistence barley farming and the herding of yaks, it has now given way to "matsutake mansions," (a phrase first turned by David Arora).

Chapter Seven provides the author's "Final Thoughts on Understanding Fungi and Others as World-Makers." As it draws together several major themes into a summarizing conclusion, it prepares us for the book's fascinating index, led by the verbatim reprinting of a translated guide created by the Mycological Society of Japan, called "One Hundred Selections of Fungi Voted Most Connected to the People of Japan" (one wonders what a North American list would

look like? How much or how little confluence would be found? Let's get on this!). In case you haven't already signed on to the author's insistence that we embrace his assertions of biosemiotic (myco) relativity, the list's charming mistranslations of Japanese mushroom names serve to underscore the value in knowing other languages' colloquially expressed codes of comprehension; lion's mane (*Hericium erinaceus*) mushrooms are "rabbit-shaped mushrooms have a new sense of texture and flavor," while *Lyophyllum fumosum* begs the question "is Buddha surprised too?" *Onygena corvina* is "a rare bacterium [sic] that occurs in the owl's beak" and *Podostroma cornu-domae* asks whether "you suffer from flames if you eat?" Delicious!

Fellow mycophiles, I think you need to read this book. I know I did. I will also soon be snagging a copy of Tsing's 2015 work as I eagerly await Shiho Satsuka's upcoming final installment in this seminal trilogy. As hungry as we always are for mushrooms, aren't we that much hungrier to know what they know, what they say to each other and might tell us if only we can retune our unlearned ears? Going forward, I gratefully accept Hathaway's challenge to engage in my own fungal encounters with the respect owed to mushrooms' amply demonstrated, undeniably active sentience.



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